ISSUE 5 ● FEBRUARY 1987 ● £1.25

8000 PLUS

THE MAGAZINE FOR THE

AMSTRAD

PCW 8256·8512

WIN THIS PRINTER

in our exciting competition

Better print!

A complete guide to upgrading from

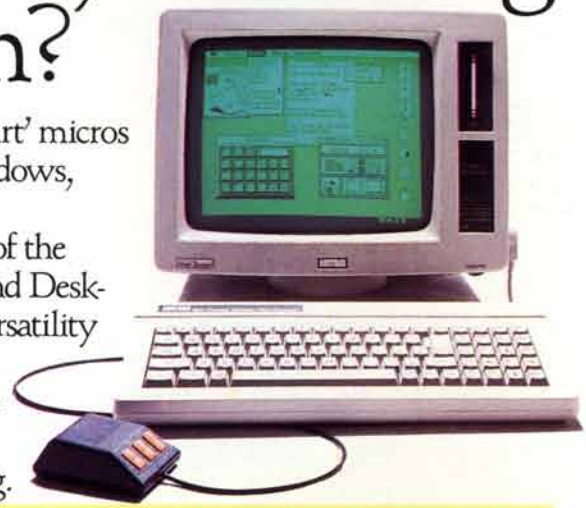
standard PCW text

to

high quality daisywheel text

Protext – full review • Trivial Pursuit on the PCW • 4 pages of hints and tips

What's so special about the Mac, the Atari St, The Amiga, Windows and Gem?



It's no surprise that nearly all new 16 bit 'state of the art' micros now come with a Mouse and Wimp environment (Windows, Icons, Menus and Pointers) as standard.

With the AMSTRAD PCW you already own one of the classic micros and by simply adding the AMX Mouse and Desk-top you can achieve the same ease of use, freedom and versatility of much more sophisticated computers.

The AMX Mouse and compatible software – it's what you and your AMSTRAD micro have been missing.

AMX MOUSE PACKAGE 3" DISC £79.95

There's not much joy in a joystick and keyboards can be all fingers and thumbs. Acclaimed by the press as 'the best input device', already over 50,000 micro users have adopted an AMX Mouse. No more complicated CP/M commands to remember, with the AMX Mouse you just point and click, even the experts find this system more efficient. Available for the Amstrad PCW 8256 & 8512.

GRAPHIC FRONT END

Provides an easy to use graphic based front end to your computers disc filing system including a comprehensive set of disc management operations such as cataloging, coping, deleting, re-naming and formating. There's no need to enter a command to run programs from disc, just point the mouse at the representing icon and click the button.

TELEPHONE ADDRESS BOOK

A central place to store all your important names, addresses and telephone numbers.

A database type search facility allows you to enter any part of the information such as a persons' name, company name, town etc and instantly see the matching entry.

DESK DIARY

A versatile appointments diary allowing you up to seven lines to be entered for any day. Printing facilities allow yearly and monthly summaries to be produced indicating days for which an entry has been indicated.

MEMO PAD

This allows anything from a quick memo to a complete multi-page report to be produced from the Desktop. Many word processing features are included such as centering, justification, cut, copy and paste etc.

DESK ACCESSORIES

The AMX Mouse package also includes a number of extra functions which are available for use at all times from the desktop. These include a jotter, alarm clock, calculator, puzzle and control panel – the type of tools found on a real desk top!

STOP PRESS... STOP PRESS...

There will be a growing list of further mouse compatible software for the Amstrad PCW from AMS and other leading software houses in the coming months including Graphic and Desktop publishing programs.

This superb product is available now from all good computer dealers or direct by cheque, Access or Visa. All prices include VAT and post and packaging.

FOR INSTANT ACCESS/VISA ORDERS TELEPHONE (0925) 413501/2/3

AMX SOFTWARE

IMAGINATION AT YOUR FINGERTIPS

ADVANCED MEMORY SYSTEMS LTD. 166/170 WILDERSPOOL CAUSEWAY, WARRINGTON, WA4 6QA. TELEX 628672 AMSG. FAX 0925 58039.

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OPENING MENU

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More goodies at never-to-be-repeated prices!

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Another batch of your views, opinions and aggravations.

Cracker2

The professionals' choice.

If you want a spreadsheet for the PCW8256/8512 that includes the more advanced features that other 8-bit CPM spreadsheets left behind when 16 bit PC developments become the vogue - then you have only one choice. **Cracker2.**

There is an unmatched range of *high resolution* graphics, which are created from embedded functions in the sheet itself, I/O control for the scientific user. Do-while loops for the goal seeking financial wizzard. Cracker2 has the lot, and more besides. Cracker is another NewStar product that bridges the gap between the PCW8256 and IBM PC, because although the limited features of other spreadsheets may be adequate for novice users, wouldn't you prefer to use a program that is upgradable to more micros than any other graphics spreadsheet ?

Cracker2- £49 inc VAT

• Cracker2 offers the serious spreadsheet user the following important features in addition to the *'common'* ones:

☆ User area management (essential for large capacity disk users)
☆ Contextual help at every step of the way, just press '?'
☆ Sideways printout on the PC8256 or Epson compatible printers
☆ Automatic date and calendar calculation facilities
☆ Control of input and output to & from a port address: read the temperature from your greenhouse and set the heating according to the season (in conjunction with the date functions!)
☆ Enhanced editions (Cracker3) available on the IBM PC to run under Concurrent CPM, DOS Plus or MSDOS
☆ Multiuser support with shared file security
☆ Facilities to embed printer control characters
☆ Sparse matrix storage techniques for maximum efficiency
☆ Create and store standard standard templates
☆ Macros to simplify repetitive keyboard tasks
☆ Automatic verification and check on the order of calculation to avoid the forward referencing problems that can afflict other spreadsheet systems, and thereby cause considerable inaccuracies
☆ Comprehensive installation and customisation options
☆ Simple database facilities for mailing label and list printout
☆ DIF, comma delimited and ASCII data import/export built-in

NEW STAR

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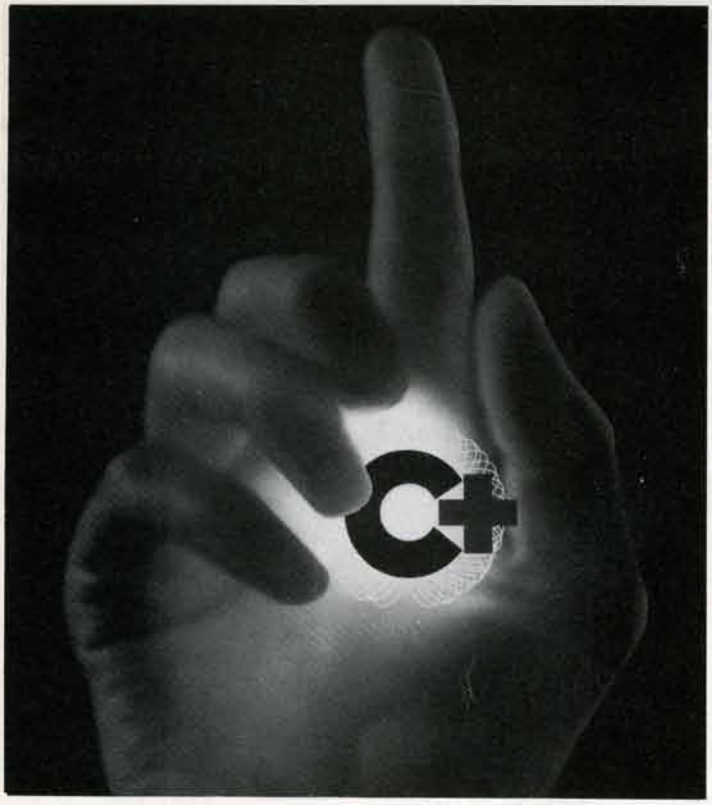
Brentwood, Essex
CM14 4SG
sales: tel 0277-220573
tlx 995194 NEWSTA G
fax 0277 232637

ABOUT THE PC EDITION

For only £69, you get in addition: colour graphics (16 colour on the Amstrad PC), the powerful option of memory residency, mouse control, high speed scrolling, quick graph option, and now also a GEM™ edition. All data is interchangable.

ALL REGISTERED TRADEMARKS RECOGNISED



A Fair Deal

Following our review of FTL Modula 2 in the last issue, it has been brought to our attention that HiSoft is now the exclusive distributor for FTL Modula 2 in Europe. The package of two 3" discs and ring bound manual is available for £54.95, the editor toolkit for a further £39.95, or the two together for £89.95.

Advantage computer user group of 33 Malyns Close, Chinnor, Oxfordshire (Tel 0844 52075) are an alternative source for the Mix C compiler, again reviewed last month. The price is £38.95, including postage and VAT.

While on the subject of prices, Analytical Engines, on 04215 62099 would like to correct their prices to the real ones, which are £39.05 for Mix C and £25.95 for the accompanying editor. The two can be had together for £55.15.

Like most hi-tech manufacturers, Amstrad has a policy of continuous development, and with their background in Hi-Fi, where new models are designed every couple of years, they are likely to be thinking about their next word processor.

This is not to say that the days of the PCW are numbered, but Amstrad have said that they've had such success with it that they certainly aren't going to leave it there. Alan Sugar has also said that he intends to be the second largest supplier of printers by the end of 1987, and Locomotive are releasing LocoScript 2 in February, which will work with a number of different printers.

With these facts in hand, what likely speculations could be made about a follow up to the current PCW series? Let's take the successful portions first.

One of the main features of the PCW is the inclusion of all the components in one package; the 'music-centre' concept. There seems no reason to move away from this idea, but it seems likely that the printer supplied with a new machine would be improved. The most likely course would be a cheap daisywheel printer, since the majority of current PCW users write letters rather than theses. One of the main complaint levelled against the PCW is the poor quality of its print, even in NLQ mode.

An alternative would be to offer a choice of daisywheel or fast dot-matrix, for those producing longer documents or using the machine for mailing-lists and the like.

The 3" disc drives could well be swapped for 5.25" drives, which are now inexpensive and compatible with those on the PC. There are likely to be single or dual drive models as at present, and it would be silly to throw away the RAM disc, which has proved popular and is cheap to fit.

The monitor of the current PCW is reasonable and might live through to the next model, although a 'paper-white' screen, as on the PC, looks trendy and is easy on the eye.

The operating system need not be changed, and helps to distinguish between the PC and the PCW. Although CP/M software is currently less sophisticated than it MS-DOS counterpart, the longer Alan Sugar sticks with CP/M the more interesting new programs are likely to written.

So what do we have? A single or dual 5.25" drive CP/M micro with 512K of RAM (much of it allocated to a RAM disc), a good quality printer (perhaps even a laser option for desktop publishing), a paper-white monitor and an improved LocoScript. I'd buy one right now, if the price tag clipped £500. How about the end of '87 for a launch?

Simon Williams

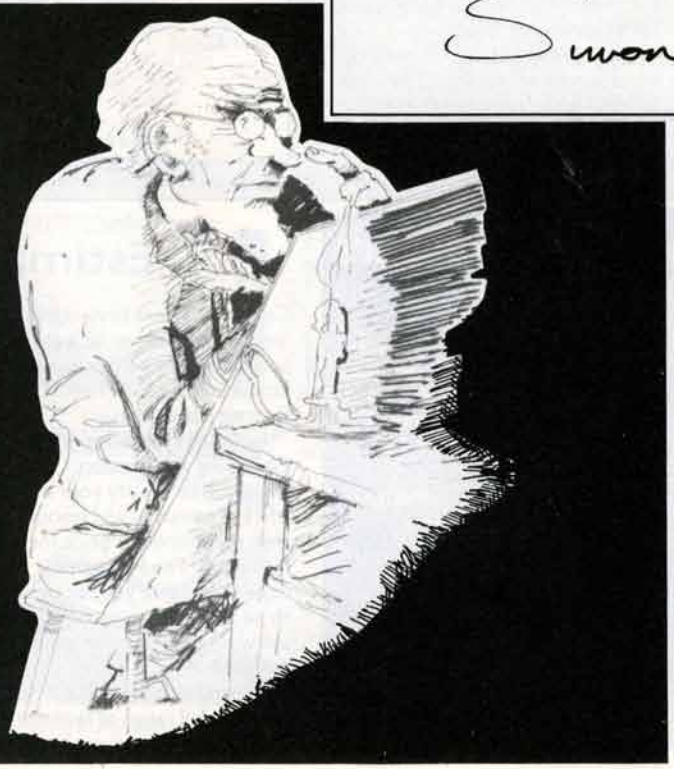
Staff Writer needed

THe continuing success of 8000 Plus means we are keen to provide still better coverage of the PCW scene. we are particularly looking for PCW owners with knowledge of communications and accounting, and with proven writing skills, although these need not have been in the computing sphere.

We can't offer packed commuter trains for your trip to work, a dense, polluted traffic-ridden environment or Capital radio, but if you'd enjoy the steaming turmoil of a quiet Somerset market town and the sickening puns of your fellow editorial staff, you may be just the person we're looking for.

If you're interested, please send a CV and sample of your writing to: *Staff Writer, 8000 Plus, The Old Barn, Somerton, Somerset TA11 7PY.*

Initial response has been largely from freelance or part-time writers. The Staff Writer's job is a full-time position.

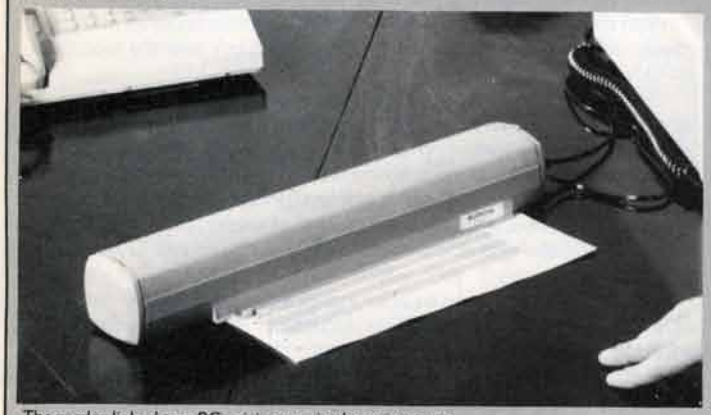


The MARCH issue of 8000 Plus is due on THURSDAY FEBRUARY 12th. Order now to avoid disappointment!

TEARING OFF A STRIP

Softstrip

A sample Softstrip



The reader linked to a PC, giving a strip the going-over

A new way of reproducing and reading program listings is soon to be made available for the Amstrad 8000 series machines.

The *Softstrip* is a method for printing programs on paper, either in books and magazines, or just on ordinary paper from your PCW printer.

At present, printing program listings in magazines is mainly for fun only – it is the hobbyists who want to type them in, and any seriously useful programs are too long to publish. Either they would take up too much space, or the chances of anybody typing them in without a mistake are so low as to defeat the purpose of the exercise.

The Softstrip promises to overcome all these disadvantages. Long programs can be printed in an economical space in magazines, and most importantly the programs can be loaded up and got running by people who know nothing about programming.

The basis of the system is an optical code reader. You have all seen bar codes on items in the supermarket, and some shops now operate their checkout tills by bar code readers. A light beam scans the printed code and picks out information from the pattern.

Softstrip operates in a similar way, except the printed code pattern is a lot more complex to pack in more information. You can see a sample of a strip on this page. Traditional bar codes have been used before for listings (most notably by Acorn User magazine), but they still took up a lot of space for sizeable programs.

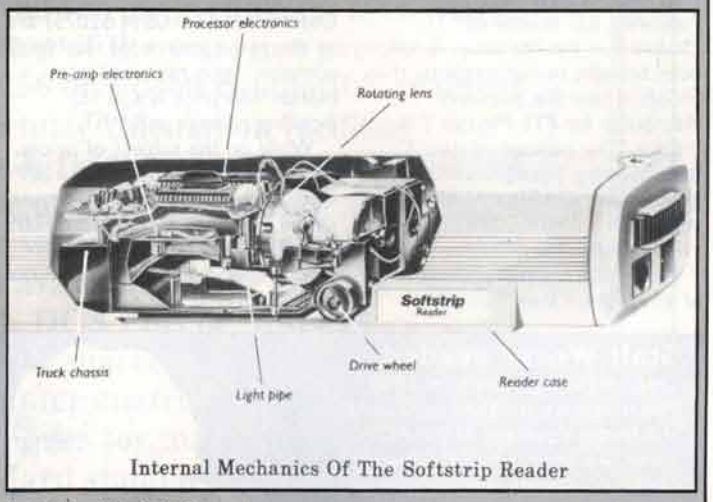
To read a strip you will need to buy a special reader for £230 – but before you scream, just think! If magazines take up the challenge, you could be able to glean software worth much more than that absolutely free.

In addition to the actual reader, for £23 you can buy a strip maker program, imaginatively titled 'StripMaker'. This allows you to output your programs to your standard printer (or any Epson type printer) in Softstrip format. You could send listings through the post without fear of your valuable discs being crushed, lost or mistaken for a letter bomb. For professional publishers, higher quality output systems are available.

The amount of information held on a strip varies with the quality of printing. The kind of strip you can print for yourself would hold around 900 bytes, whereas photographically produced strips can go to 5k. At that rate, you could fit something like LocoScript on a single A4 page! The reader plugs into a standard serial interface (RS232 port), and will scan a strip in around 30 seconds.

When Softstrip was being launched, the company arranged for the Guardian (already you are sniggering, we know) to print a sample strip which would be read live on TV by that evening's Tomorrow's World. Unfortunately the Guardian, in true style, got the printing wrong by altering the strip's size to fit in with their layout! Still, a little pre-show massaging meant the demo went successfully in the end.

The Softstrip reader for the PCW should be available from February, although versions already exist for other machines. Contact Softstrip international on 01 631 3775 if you are interested.



A cutaway of the Softstrip reader

Amstrad to launch new printers

Alan Sugar aims to become the second largest printer manufacturer in the world by the end of 1987. This sounds like a tall order, but a range of six printers at 'rock bottom prices' are due for introduction in the next year.

So far details are only available for the first of these printers, which is to be a 24 pin 'near letter quality' machine. It will be launched at the Which Computer? show in February. It remains to be seen whether this printer will be sold as a direct replacement for the PCW printer, but Amstrad have long been rumoured to be developing a better quality machine for owners of 8000 series machines.

Speculation is running high on what the other printers are likely to be. A cheap daisywheel printer is on the cards, and possibly a laser printer, which is very much the technology of the moment. Either of these machines could be harnessed to the PCW, although it might mean buying a parallel interface unit to use them.

Locomotive software's new version of LocoScript is known to support printers other than the dedicated unit, so it may well be that it is being designed with Sugar's new printers in mind.

Estimating the cost

Cornix Software have released an 'evaluation pack' to let potential purchasers get a close look at their Job Estimating and Product Costing packages.

In their full versions, Job Estimating and Product Costing allow you to specify your basic costs of materials and labour, and then recommend a price for your final work. The final price is designed to give you enough profit to be able to go out and buy more software to streamline your business.

The evaluation pack is a disc with the full range of facilities of both costing programs, but which only allows you to create small sample costings. Also on the disc are some examples to show you the kind of things it is well suited for. The evaluation pack sells for £12.50, which will be knocked off the price of a full version (£49.95) should you decide to buy later on.

Other news from Cornix concerns their Simple Accounts package. A couple of extra reporting features have been added, and the maximum number of entries has been increased. The new extensions are available at £17.25 – the price of the base pack remains at £34.95. More from Cornix at 0462 682989.

VHS for PCW

If you have trouble learning from manuals or software tutorials, there is now a third option in the form of Master Class video programmes.

Available as VHS or Betamax cassettes, this 1 hour programme is catchily titled 'Word Processing with the Amstrad Personal Computer PCW8256/8512 using LocoScript'. It runs for one hour and features 'top computer programmer' David Redclift demonstrating LocoScript screen by screen.

The tape covers most LocoScript basics, including text creation, editing and printing, disc management and use of the function keys. Just send £19.95 to Holiday Brothers at 172 Finney Lane, Heald Green, Cheadle, Cheshire, or give them a ring on 061 437 0538.

The drafting and design package *Grafpad* is now being sold with an audio tutor cassette to help you get through any possible frustrations in the first few hours.

Grafpad, reviewed at some length in issue 2, is a tablet-operated drawing program. This means that instead of using the keyboard and cursor keys to specify points on the screen, you use a special pen to point to the correct spot on the A4-sized pad. Perhaps because of this special style of operation, Grafsales are now including the 90-minute tutorial cassette with each Grafpad sold.

The tape is produced by Reel Time, who have a track record in producing similar tutorials for NewWord, LocoScript, BASIC and so on. Details on Grafpad (rrp £149.50) are to be found at the end of 0923 43942.

Down on the farm

The range of uses to which the PCW is being put continues to grow impressively. The newest 'vertical market' to be attacked is for farmers – a complete suite called Farm Office to cope with office work and farm management tasks.

The business of running a farm needs just as much organisation as other ones, but Farmplan's sales director Dennis Perkins reckons that most farmers, mistakenly, think computers are complicated, expensive, boring and not worth having.

Farm Office aims to change all that. Running on a PCW 8512, you can arrange a 3 month demonstration for £300 (including a day's training), or go the whole hog and buy a complete 8512 and software system for £1495.

Not only will Farm Office improve a farm's profitability, Farmplan's Tony Walkley assures you that "it's a lot of fun to use". Better than space invaders, hey?

▲ Farmplan in a typical ongoing utilisation situation. But where are all the sheep?

Display yourself

The Electric Studio, manufacturers of video goodies, are offering a novel advertising service for PCW-owning businesses. Following in the steps of their Light Pen, Mouse and Digitiser, they are now selling a 'Rolling Graphic Display' with up to 6 screenfulls of text and graphics.

The idea is that you set the PCW up in your window or display area, and then the Rolling Graphic Display shows a continuous smooth-scrolling display of your six promotional screens. You can display any graphics and text you like, typically created with a Light Pen or Digitiser. The display will work with the printer and keyboard disconnected to prevent mischievous fingers tampering in shops.

The price varies from around £10 to £50 or more depending on how many screens you want to display, and how complete the artwork you specify is. You can either provide your own computer-readable screens to be made up into your Rolling Graphic Display, or ask the Electric Studio to make it up for you from ordinary artwork.

For a detailed quote, get in touch with the Electric Studio's marketing company, Software Marketing, on 0462 834864.

Discreet Desktops

MEAC designs have an interesting range of bolt-ons for those who suffer from Cramped Desk syndrome (hitherto an invariably fatal disease).

Collectively known as the Desk Top Companion range, there are three parts of interest. A printer stand allows you to tuck your modem or second disc drive out of the way beneath the printer (see the picture); a monitor mounting shelf allows you to put the printer on top of the monitor, so clearing its desk space altogether; and finally, another top mounting tray provides a firm perch for your modem, disc drive or toy cars atop the monitor.

Either variety of printer stand costs £9.50, and the top mounting tray goes for £15. MEAC also sell a set of upgrade chips to convert a PCW8256 into a 512k powerhouse for a meagre £23.95. MEAC's phone number is 0252 879005.

Chibase updates

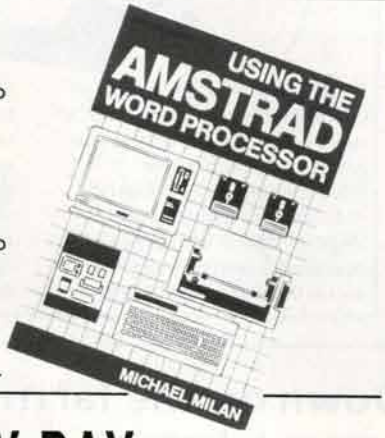
Chibase, the free format database from Chiasma Software, has now been modified to make it friendlier. Among the improvements are an 'insert mode' editing option, fast cursor movements, better use of the keyboard and an index to the manual.

The price remains at £49.95, but existing users can upgrade by returning their original disc with £4.

New PCW book

A new tutorial book is out for PCW owners, which does seem to have something above the run-of-the-mill LocoScript tutorials.

Using the Amstrad Word Processor, by Michael Milan, is published by the NCC for £8.50. Apart from the obligatory guide to LocoScript, it has a good section for beginners on getting into communications and bulletin boards. There is also a complete type-in database written in BASIC.



Mixed up? Try MICCS

Merseyside Innovation Centre Computing Services Ltd

The Merseyside Innovation Centre Computing Services ltd is offering impartial help and advice for the North West.

Based in Central Liverpool, with a scenic view of the Catholic cathedral, the centre has links with Liverpool's University and Polytechnic, the DTI and ICL. Since 1982, over 1000 local firms have successfully sought MICCS's help and advice.

The centre offers training courses for the PCW and Amstrad PC, amongst other consultancy work on how to choose a computer, preparation of tenders, programming, communications, word processing and technical documentation. If you would like to arrange for some advice, contact MICCS in Liverpool at 051-708 0123.

GO ON PUNK, PLAN MY DAY

From Clint Eastwood downwards, everyone needs a little organisation in their lives. New from Database software is Plan-It, a "complete personal organiser" package.

Plan-It provides personal accounts with up to 9 separate credit card records, a financial diary to control your expense account lunches and a card index database for your address book. Optionally, you can also have a calendar and a loan calculator.

Sounds a particularly useful little number if you happen to be carrying your PCW with you in your handbag. Plan-It costs £19.95 – Get more details from Lorraine Alcock on 061-483 2737.

Letter Quality print from LocoScript

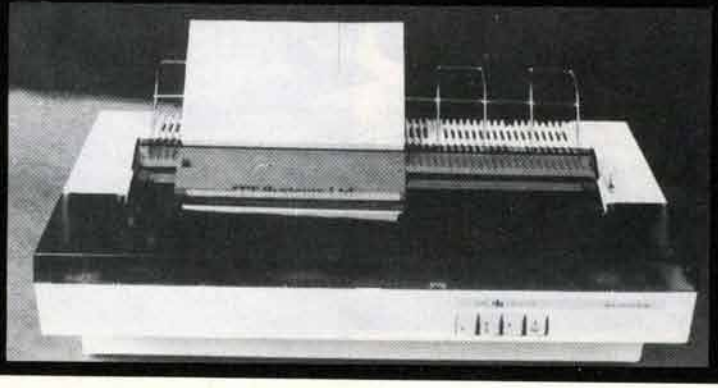
ATT Systems of Kenilworth in Warwickshire have developed a special daisywheel printer and software to print out LocoScript files in high quality.

Normally, when printing out LocoScript documents to any printer other than the standard PCW printer, you have to 'Make an ASCII file' before you can print, which means you lose all your precious special format codes (like bold, underline and pitch changes).

Now, for £549+VAT (£631 in total), you can buy a fast, high quality daisywheel printer which will print all the underlining and pitch changes with ordinary LocoScript documents. The printer claims to run quietly at 35 characters per second – almost twice as fast as the standard printer in 'high quality' mode.

You still can't use it as a direct replacement for the ordinary printer, in that you can't just say 'Print' from LocoScript's main menu to output a file. Instead, you start CP/M up and run a special program to print your LocoScript document.

More details from ATT at 0926 55914.



WHY DO WE STILL SUPPORT THE PCW8256/512?

1 IN STOCK NOW!
NOT WAITING TO BE SHIPPED TO UK!

2 SERVICE AND BACK UP!
SPARES AND PARTS ARE AVAILABLE OFF THE SHELF

3 PERSONAL COMPUTING!
YES YOU CAN! AS WELL AS A WORD PROCESSOR

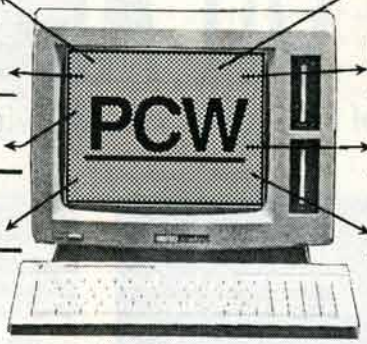
4 WE USE THEM!
EVERY DAY, FROM ACCOUNTS TO OUR SOFTWARE

5 SOFTWARE IS CHEAP!
THIS IS DUE TO 1/2 MILLION USERS.

6 PRINTER IS FREE!
AND THE WORD PROCESSOR TOO.

7 NOT ANOTHER CLONE!
THE PCW HAS STYLE AND POWER, BUT BETTER STILL HAS A LOW PRICE.

8 EXPANDABLE!
WE STOCK EVERY ITEM TO BE PLUGGED IN, AT LOW PRICES.



Converts your statistical data into Pye Charts, Bar Charts, 3D plots. Inter relates everyday problems into easy, understandable analysis. Ideal for the educational user.

Vastly becoming the best known graphics utility program for Mallard Basic "*Graphics without the pain*" A.P.C. September 1986.

New, as promised, this utility turns your PCW's printer into a plotter plus lots more powerful printer functions from Mallard Basic. Compatible with Exbasic.

All the power of Exbasic Graphics and Ptrbasic, printing abilities, but will run with CBasic, Pascal, Cobol, CP/M assemblers and others

We read your letters so here they are !

ITS BASIC £7.95 inc
For adults only 20 programs written in mallard basic that guarantees hours of fun

Software;

AUDIO TUTORIAL TAPES	7.95
BRAINSTORM	38.95
CAMBASE	48.95
CARD BOX	48.95
CONDOR 1	79.95
CORNIX SIMPLE ACCOUNTS	32.95
CORNIX CARD-INDEX	21.95
CORNIX PRODUCT COSTING	44.95
CORNIX JOB ESTIMATING	44.95
CRACKER 11	38.95
DBASE 11	95.95
DELTA 1.25	79.95
DR CBASIC	42.95
DR DRAW	42.95
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PCW 8256 MEMORY UPGRADE	22.00
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PCW RS232/CENT. INTERFACE	53.00
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A PRINTER FOR ALL SEASONS

Ben Taylor looks at a selection of budget printers, with something for everyone's printing needs

The printer which comes bundled with the PCW is cheap and cheerful, and is good enough for most straightforward home users. For more serious use, however, the standard printer seems to fail to satisfy almost everybody in either speed or quality. Here are five low cost printers, one of which just might solve all your problems.

It is increasingly rare to find a dot matrix printer at much over £400, unless it boasts a big name badge or an incredible speed, and fair quality daisywheel printers are now available too for under £300. In this article, five printers face the ultimate test ... the 8000 Plus challenge. Remember that the printers covered here are not the *only* ones on the market. In particular, if you nose around the discount shops you can often pick up some spectacular bargains from end-of-line products which manufacturers dump on the market before launching a new model.

The prices quoted at the start of each review are the list prices inclusive of VAT and any extras necessary for them to work, like their interface cartridge. Don't forget you will need to buy a serial/parallel interface for your PCW as well, at around £55. Prices vary from dealer to dealer by a large amount, so shop around.

Many thanks to Citizen Europe, Millbank Computers and Micro Peripherals for their efficient and friendly help in providing evaluation models for this review.

Printer speeds

You may be a little puzzled by the difference between official speed figures for printers and the ones quoted in this article. Like car m.p.g. figures, manufacturers choose the best possible conditions for a test, usually printing only one simple character like 'i' repeatedly on the same line. This means there is no account taken of the time to do a carriage return. Our figures are measured for a typical file, and are, we think, more realistic of the speeds you will get in everyday use.

DOT MATRIX PRINTERS

Versatile and fast, dot matrix printers are the usual choice for home users. Of course, the PCW has its own dot matrix printer, so why should you change? Well, it's not very fast, and its letter quality print is a bit dubious. But if it's speed rather than extra high quality you want ...

CITIZEN 120D with parallel interface
£284.05 • Citizen Europe • 0895 72621

The 120D is a pleasantly compact and well-styled printer that seems ideally pitched at the home user. It is similar in size to the standard PCW printer, and would fit well on anyone's computer desk.

When printing NLQ text, the 120D gives a nice dark print, well proportioned with good descenders on the 'p', 'q' etc – the tails come down a good way below the ordinary level of the line without the rest of the letter being 'scrunched up'. However, the NLQ print still has a slightly grainy image, which detracts from an otherwise good performance.

Speedwise the performance is again good; in draft mode, it prints 87 character per second (the claimed official figure is 120 cps), and in NLQ mode it trundles out 20 cps (official figure: 24 cps).

The paper feed functions are controlled by three push-buttons on the front panel, and the form feed button also allows you to auto-load single sheet paper, much as the PCW printer does. Rest the paper on the roller, push the button and it is pulled through into position.

The three paper feed controls also determine quality of print, pitch size and so on. This means you have to go through ridiculous sequences of button-pushes to get what you want. For example, to set NLQ print mode, make sure the printer is on line, then press Form Feed and On-line together, then On-line again, then Form Feed, then Line Feed, and finally you can go ahead and print. There are no indicator lights to tell you what state the printer is in once you have changed to NLQ mode. A little unfriendly, surely?

The basic price of the 120D is £207, plus the ubiquitous VAT. You also have to fork out more for the little matter of an 'interface cartridge'. (This is not the same as the interface you need at the PCW end of your printer cable. These are surveyed on page 55.) The interface *cartridge* plugs into the printer to complete the communication link. It's a bit naughty of manufacturers to price this cartridge separately from the printer, as the printer is useless without it.

A parallel interface (ie. for Centronics leads) costs £40, but if you have to use a serial interface that costs £54, both plus VAT again.

PLUSES
- ⊞ Works fast for its print quality
- ⊞ Compact and pleasant to use
- ⊞ Loads single sheets of paper automatically

MINUSES
- ⊟ The NLQ text is very slightly grainy
- ⊟ Fiddly to use the panel buttons to set up NLQ etc

RANGE OF FEATURES ■■■■□ OVERALL SPEED ■■■■□
EASE OF USE ■■■□□ DOCUMENTATION ■■■□□

8000 PLUS VALUE VERDICT ■■■■□

STAR NL-10 with parallel interface
£319.70 • Millbank Computers • 01-847 4151

Measuring up at 395mm wide by 90mm high by 330mm deep, the Star NL-10 feels physically more robust than the Citizen 120D and the standard PCW printer, and this is reflected in a slightly higher price.

Its NLQ print is solid and full-bodied (like a good bottle of red wine) and suits 10-pitch text well. Having said which, the characters with descenders are imperfect – the descenders don't come very far below the normal baseline, and the upper halves look a bit compressed. A major failing is that you can't get proportional spaced print, or even 12-pitch print, in NLQ mode.

The actual printing speed too is quite good, although some way short of the claimed performance figures. Draft print comes out at around 80 characters per second (compared to the manufacturer's figure of 120 cps), and the NLQ print at 17 cps (official figure: 30 cps).

The printer controls on the front panel are very well designed and simple to use. A display of lights lets you know exactly what mode you are in, and you can switch between NLQ and 80/96/136 column draft text, and turn on bold text by simple button presses.

As with the Citizen 120D, the list price of the NL-10, £239, excludes both VAT and an interface cartridge, which you will need. A parallel interface costs £39 and a serial interface £79, plus VAT.

This is the most costly of the dot matrix printers, but also the most robust. If you want a workhorse printer to replace your failing standard one, it's worth the money as long as you don't use proportional spacing in letters.

PLUSES	MINUSES
⊞ Robust physical construction	⊟ Inflexible in NLQ mode – no proportional spacing
⊞ Solid good quality NLQ text	⊟ Slightly funny decenders on characters (p, q, j etc)
⊞ Simple and clear panel controls	
⊞ Loads single sheets automatically	

RANGE OF FEATURES ■■■□□ OVERALL SPEED ■■■■□
EASE OF USE ■■■■■ DOCUMENTATION ■■■□□

8000 PLUS VALUE VERDICT ■■■□□

MICRO PERIPHERALS MP-165
£297.85 • Micro Peripherals • 0256 473232

Obviously not a contender for the Paris fashion show this year, the MP-165 is solidly built (for 'solid' read 'heavy'). The main thing it boasts over its rivals is speed, which is indeed impressive. In draft quality it was measured at 107 characters per second, and in 'Fine' mode 22 cps.

As to quality of print, the MP-165 is more or less OK. With most printers, the draft quality text and the letter quality text are in fact entirely different typefaces, usually with serifs on the NLQ font. However, the MP-165 merely takes the ordinary draft text and fills in the gaps in the characters, with the result that it looks a bit computery. Although having said this, the Fine text is crisp and dark.

Physically, the printer is awkward. Clearly its intended for tractor fed (perforated) stationery, since feeding in single sheets is a real sweat. There is no automatic feed mechanism, and the friction rollers are very stiff. A panel of controls allow you to swap between draft and Fine mode, and do the usual form feeds etc.

One niggle is that the 'paper out' detector, which halts printing when the printer thinks it needs a new sheet, comes into operation disturbingly early, leaving a large area of blank at the bottom of the sheet.

If you want to print very rapid draft copies of long documents on continuous stationery, the MP-165 is a good buy. But for letters to your bank manager it leaves something to be desired. At least the price includes its built-in interface.

PLUSES	MINUSES
⊞ The fastest printer at this price	⊟ 'Fine' print mode is not really up to letter quality
⊞ Simple to use	⊟ Awkward to feed in single sheet stationery
⊞ Solidly built	⊟ Detects the end of single sheets too early

RANGE OF FEATURES ■■■□□ OVERALL SPEED ■■■■■
EASE OF USE ■■□□□ DOCUMENTATION ■■■□□

8000 PLUS VALUE VERDICT ■■■□□

LocoScript and Printers

Because of the rather special way that LocoScript works, it cannot print files to any printer other than the PCW's normal one. *LocoScript 2*, promised for February, will rectify this failing, or alternatively you could look at ATT's special daisywheel printer which *does* run from LocoScript – for £630.

At present, though, you can only print a LocoScript file on a non-standard printer by first making an ASCII file. This means taking a LocoScript document (which is stored in a special way) and translating it into a form which can be printed out. To do this, choose the 'f7 Modes' menu on the Disc Manager screen, pick the 'Make ASCII file' option, and follow the instructions to create what it calls a 'Page Image File'. Choose the leftmost group on the disc as the 'destination group'.

Now start CP/M going, and wait for the familiar 'A>' prompt. As described under in the 'Connecting' box elsewhere in this survey, get everything wired up and type `DEVICE LST:=CEN` (if you are using a printer with a parallel interface.)

Now you can print the file with the dreaded PIP. From your CP/M work disc type `PIP [RETURN]`, and you will see an asterisk prompt. Put in your disc with the ASCII file that you've just made, and type `LST:=name.abc`, where 'name.abc' is the name that you gave to the ASCII file when LocoScript asked you.

The document now comes out on the printer, although without effects like underlining or bold. When it has finished, restart LocoScript by resetting the PCW as usual with [SHIFT]+[EXTRA]+[EXIT].

Printerspeak

How many NLQs in a dot matrix? What is the best weedkiller to use on daisywheels? If you are confused by some of the printer descriptions here, don't forget to read page 23, where we explain what the various features are for and which ones you need for your application.

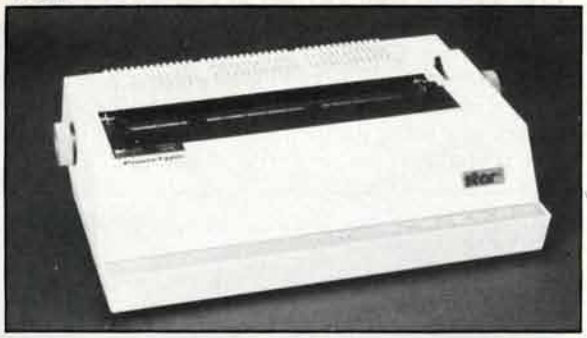
Cherubs and serifs

'Serif' is a printers' term to describe the look of a typeface – serif typefaces have little crosspieces where the strokes of each letter end. The main text of 8000 plus has no serifs (this is known as 'sans-serif' or 'grotesque' text!), but this margin note does have serifs. See?

DAISYWHEEL PRINTERS

Daisywheel printers produce text which looks much like a typewriter's, and is produced in the same way with a hammer and key-die. They only produce high quality text, with no draft mode, and can't produce graphics (ie. no screen dumps). Traditionally they have always been costly, but ...

STAR POWERTYPE
£263.35 • Millbank Computers • 01-847 4151



PLUSES
- ⊞ Good solid inking of characters
- ⊞ 16 cps print speed is quite respectable for the price
- ⊞ Range of alternative print wheels available
- ⊞ Both parallel and serial interfaces as standard

MINUSES
- ⊟ Tractor feeder mechanism is extra
- ⊟ It's ugly!

RANGE OF FEATURES ■■■□□ OVERALL SPEED ■■■□□
EASE OF USE ■■■■□ DOCUMENTATION ■■■□□
8000 PLUS VALUE VERDICT ■■■■■

If the Micro Peripherals MP-165 was banned from the Paris fashion show, then the Star PowerType won first prize at the Notre Dame Quasimodo competition. If it wasn't for the fact that it is cheap, efficient and very good value for money, then the PowerType might be described as 'ugly'.

Weighing in at 11.7 kilograms, the PowerType is no fairy. The characters are solid and pleasant, produced without too much noise, but not quite as crisp as they could be. It claims to print out 18 characters per second, and the measured speed in our tests was 16 cps, which was a pleasant surprise after seeing some other printers fall short by up to 50%.

Another pleasant surprise is that it comes with both serial and parallel interfaces as standard, so there are no hidden extras. But ("Aha," you say, "I knew there would be a catch") unfortunately a tractor feed mechanism for continuous stationery costs £58.65 extra. Still, if all you ever do is single sheet letters, you are laughing.

There is no automatic single sheet feeder, and you feed in paper much like a typewriter, with a friction roller and manual alignment. A row of buttons on the front panel control the traditional on-line/off-line operations, form feeds and so on. Running a WordStar test file through the PowerType produced fine results – all the justification, bold, underline, superscript and backspace commands worked.

The PowerType uses a carbon ribbon, as used in electric typewriters, so there are no ink smudging problems. There was no £ sign on the standard print wheel, but a wide range of wheels covering foreign accents, Greek characters and so on are available from around £4.

As a budget daisywheel printer, the PowerType represents remarkably good value, particularly if you don't use continuous stationery. Its only drawback is its looks.

Don't be silly!

A word of warning to prevent you making a fool of yourself. If you look around your local dealers for printers, and a friendly salesman tries to sell you a Seikosha SP1000A, don't be tempted... this is in fact the very printer that you already have! Amstrad did a deal with Seiko, and just slapped their own badge onto it and made some modifications, but the print quality and speed are identical.

JUKI 6100
£458.85 • Micro Peripherals • 0602 473232

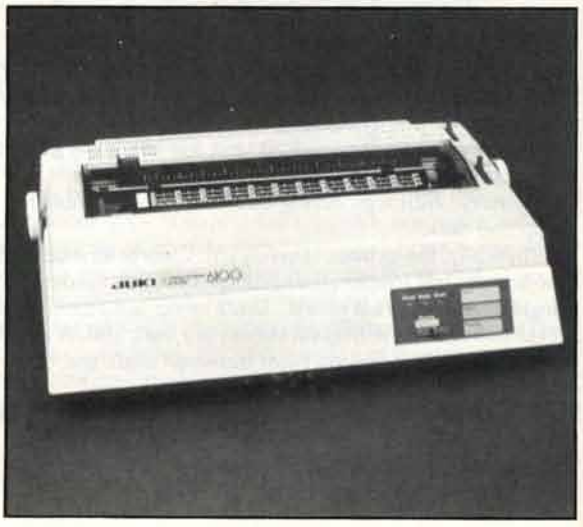
This is the costliest of the printers reviewed, but nevertheless is still at the low end of the price range for daisywheel output. Although bulky like the PowerType, the 6100 is much more streamlined and modern to look at. The front panel controls are touch-sensitive switches rather than yellow plastic buttons.

The print quality from the 6100 is excellent, and the standard print wheel that comes with it actually has a £ sign. The print is very crisp, solidly inked from a carbon film ribbon with a choice of proportional spacing, 10, 12 or 15 pitch spacing. Unfortunately the 6100 is quite noisy in action.

The manual is very good, laid out with cartoons to make the reading less arduous. The key points are summarised in boxes in the margins of the pages, and there are specific instructions on how to make WordStar drive the 6100 correctly.

The measured print speed is about average for a low-priced daisywheel printer, working out at 17 characters per second. As usual, a range of alternative daisywheels are available for different typefaces and so on, at around £9 each. Tractor feeder and single sheet paper feeders are available too.

Overall, an excellent quality printer that justifies its higher price for those demanding really good print.



PLUSES
- ⊞ Excellent quality print
- ⊞ Looks streamlined, despite its bulk
- ⊞ Prints at 17 characters per second
- ⊞ Simple front panel controls

MINUSES
- ⊟ Still no tractor feeder in the standard price
- ⊟ Quite noisy in action
- ⊟ A little costlier than the Star PowerType

RANGE OF FEATURES ■■■□□ OVERALL SPEED ■■■□□
EASE OF USE ■■■■□ DOCUMENTATION ■■■■□
8000 PLUS VALUE VERDICT ■■■■□

Connecting to a PCW

None of these printers are specifically designed to work with a PCW, so they don't have any instructions for connecting them up.

First, you will need to buy a serial and parallel interface – see elsewhere in this issue for a selection of those available. If your dealer offers you a choice of 'serial' (sometimes called RS232) or 'parallel' (sometimes called Centronics) operation for the printer you are buying, choose parallel, and make sure you buy a connecting lead too.

Now plug your interface onto your PCW, connect the leads and start up CP/M. You will need to copy the file DEVICE.COM from side 3 of the master discs onto your CP/M work disc, and also SETSIO.COM if you are using the serial interface.

Normally, the PCW sends printer output to the standard printer. If you type `DEVICE LST:=CEN` (English translation: 'Dear PCW, please send everything for LiSTing down the CENtronics lead instead'), then all CP/M programs like PIP, WordStar, SuperCalc and so on will use the new printer. You can change back to the standard printer with the command `DEVICE LST:=LPT`.

If you have the misfortune to use a serial interface with your printer, read this month's CP/M article on how to use SETSIO to match the PCW to the printer. Once done, type `DEVICE LST:=SIO` to force all listing to the serial interface.

One final warning: if the printer is out of paper, or otherwise unable to print, and you try to print something, CP/M will get confused and beep at you with a message like "CEN not ready - Retry, Ignore or Cancel?'. If so, sort out your printer and then press 'R' for Retry. Don't press 'C' for Cancel, or the PCW will disconnect the CENtronics port, and you will have to get back to the CP/M prompt and repeat the `DEVICE LST:=CEN` before you can print again.

	PCW Standard Printer	Star NL-10	Citizen 120D	MP-165	Star PowerType	Juki 6100
Base List Price (£ inc VAT)	-	274.85*	238.05*	297.85	263.35	458.85
Dimensions (H / W / D mm)	90 / 400 / 180	90 / 395 / 330	90 / 370 / 238	130 / 400 / 280	140 / 500 / 360	160 / 510 / 360
Draft Speed (cps)	50	80	87	107	-	-
High Quality Speed (cps)	11	17	20	22	16	17
Serial Interface	-	90.85	62.10	79.35	√	90.85
Parallel Interface	-	44.85	46.00	√	√	√
Tractor Feeder	√	√	√	√	58.65	182.85
Single Sheet Autoloading	√	√	√	x	x	x
Single Sheet Feeder	x	63.25	109.25	x	241.50	available
NLQ Proportional Spacing	√	x	√	√	√	√
Double Height Text	x	√	√	x	-	-

* You will need to buy a serial or parallel interface cartridge in order to use these printers

KEY: √ Fitted as standard; x Not available on this model; - This option costs £xx extra (VAT inclusive); £xx Not applicable to this kind of printer

NLQ PRINT SAMPLES COMPARED

```
The quick brown ferret jumped over the lazy aardvark
THE QUICK BROWN FERRET JUMPED OVER THE LAZY AARDVARK
1234567890
!"£$%'&*()<>?@/-_=+
```
Standard PCW printer

```
The quick brown ferret jumped over the lazy aardvark
THE QUICK BROWN FERRET JUMPED OVER THE LAZY AARDVARK
1234567890
!"#$%'&*()<>?@/-_=+
```
Citizen 120D

```
The quick brown ferret jumped over the lazy aardvark
THE QUICK BROWN FERRET JUMPED OVER THE LAZY AARDVARK
1234567890
!"#$%'&*()<>?@/-_=+
```
Star NL-10

```
The quick brown ferret jumped over the lazy aardvark
THE QUICK BROWN FERRET JUMPED OVER THE LAZY AARDVARK
1234567890
!"£$%'&*()<>?@/-_=+
```
Micro Peripherals MP-165

```
The quick brown ferret jumped over the lazy aardvark
THE QUICK BROWN FERRET JUMPED OVER THE LAZY AARDVARK
1234567890
!"#$%'&*(){}<>?@/-_=+
```
Star PowerType

```
The quick brown ferret jumped over the lazy aardvark
THE QUICK BROWN FERRET JUMPED OVER THE LAZY AARDVARK
1234567890
!"£$%'&*(){}<>?@/-_=+
```
Juki 6100

SUMMING UP

FASTEST PRINTER
Micro Peripherals MP-165

BEST VALUE FOR QUALITY PRINT
Star PowerType

BEST QUALITY PRINTER
Juki 6100

BEST SPEED/QUALITY COMBINATION
Citizen 120D

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12 months of entries are kept in a file stored on your disc. At any time, you may load a file into the computer memory, add to or edit the entries, analyse them, print statements, and then save the updated file for later use. Entries may be historic (for record keeping) or forecast (for budgeting). You may have any number of separate files, and make copies of files for archive purposes. You may advance the period covered by a file month by month.

Up to 100 separate transactions may be entered per month. Each entry consists of:

- The day of the month, e.g. 23rd of June.
- An account number, one of up to 9 defined by you to suit your circumstances e.g. 1=Barclays, 2=Visa, 3=Halifax etc.
- Reference, e.g. ABC123 for a cheque number or invoice reference.
- A class code, one of up to 50 defined by you to suit your circumstances e.g. h0=Household expenses, h1=Mortgage, h2=Rates or p0=Production, p1=Raw materials, p2=Assembly, p3=Packing, etc.
- A description so that you can see what each transaction was for, e.g. "New gearbox" or "Box of 10 discs".
- An optional single character mark which you may include for further classification, e.g. b=business, p=private, etc.
- The amount of the transaction, which may be plus or minus.
- A marker to indicate whether the entry is exempt, zero rated or taxable for VAT, or alternatively the actual VAT paid.

You may select categories according to account, class and mark (e.g. all entries, or all motoring expenses for business using a credit card, etc.) and produce reports on the screen or printer as follows:

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- Tables showing the totals in each class for each account.
- Tables showing monthly maximum, minimum, average balances, turnover, cashflow etc.
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BUSINESS MATTERS

Using LocoScript to polish off simple business letters

The advent of low-cost LocoScript word processing has encouraged many people in business to type their own letters and documents, whereas previously they might have dictated a letter for a secretary to type up. Beware, though – there are well defined conventions for laying out business letters, and ignoring these could give your business an amateurish image.

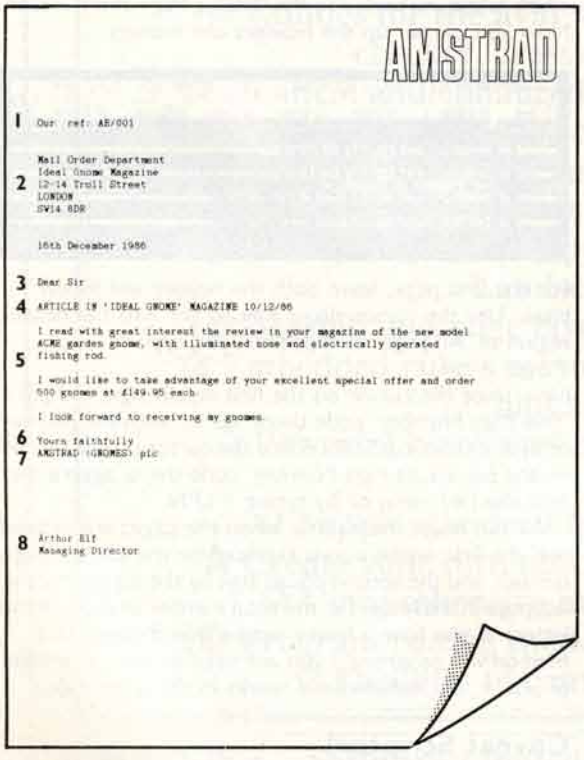
There's an old Disney cartoon which ought to be compulsory viewing for all driving test candidates. It stars placid, mild mannered Goofy, and follows him on his route to work one day. In the morning he ambles out to the car and gets in; at the instant he turns the ignition key, a miraculous transformation overtakes him. His eyes bulge, his face goes red, he hits the horn, screeches off with a plume of burning rubber and careers down the road leaving a trail of wreckage behind him.

This all goes to show how ordinary people become mentally unbalanced when faced with a car. In some respects, word processors can have the same effect; people who chat to you on the phone quite normally suddenly get hold of a word processor and forget the basic principles of putting one word after another on a page.

The business of writing

Different secretarial colleges teach different styles of letter writing, and if you work in a big company there may well be a 'company standard' which you have to use anyway. But for general use, here are some simple guidelines for writing single page letters. Following it are notes which go through each part of the letter.

Overall, you need to aim for a friendly but professional feel to the letter. This means using the parts of the standard layout which are appropriate to your reader, but avoiding irrelevant bits (like the 'Our Ref' part) where they aren't needed. Don't get seduced into wordy officialese, like 'With reference to the conversation between the aforementioned and the undersigned.' When you've finished a letter, imagine that you are on the phone to the person and reading out the body of the letter text. If it doesn't sound natural, you've probably gone over the top.



1 References. The idea of a reference on a letter is to help you trace it later on. If somebody writes to you saying, "Thank you for your letter of 16th December, reference AE/001" you will be able to quickly find your copy of the original text and remember what's going on.

With LocoScript, one good idea is to have your reference as the name of the file in which the letter is stored. If you have several discs numbered 1, 2, 3 ... then you can add this in too. For example, if you have written a letter in a file called IGM.001 on disc number 2, you might use the reference 2/IGM.001

If you don't keep formal records of letters then leave out the word 'Ref:' altogether – it looks pompous to have irrelevant headings flying around. Also, don't use this if you are a writing as a private individual rather than as a company, since that looks silly too.

2 Address. This is positioned so that when an A4 letter is folded into 3, the address will show properly through a standard envelope. In keeping with the modern punctuation style, there are no commas at the ends of lines.

You may have to experiment a little to find the best position for the address on your envelopes, but it will probably start around the 11th or 12th line on the page. Bear in mind that the PCW automatically leaves 6 blank lines at the top of a page when you use single sheet paper, so the first line of your LocoScript letter appears on line 7 of the page.

Leave two blank lines above and below the address, so that you don't get rogue lines showing through the address window of the envelope.

3 Greeting. Obviously, the whole tone of a letter is determined by how well you know somebody. If you are writing to an organisation where you don't know who will read the letter, begin off 'Dear Sir' (or 'Dear Sir or Madam' if you want to keep your options open). With this greeting, the letter should be ended 'Yours faithfully'.

On the other hand, if you know the name of the person you are writing to (perhaps you have spoken on the phone), begin off 'Dear Mr. Elf', 'Dear Arthur' or whatever. End these letters with 'Yours sincerely'.

4 Title. If the occasion demands it, put the subject of the letter in capitals at the start. Not all letters need this line, so use your judgement to tell whether it looks silly or not. Generally, it is used when you are writing to someone for the first few times, but not once you get into an involved correspondence.

5 Text body. The modern style for text is that paragraphs start hard against the left margin (no indentation), and there is a blank line between each paragraph. This helps to break up long pages of text and make them easier to read.

The final line of the letter should give some clue as to what will happen next. If you expect a reply from someone, say so here. Equally, if they have to wait for you to do something, say so.

6 Close. What form of close you use depends on what you wrote in the 'Dear ...' slot. Often, to a fairly close business acquaintance, 'Best wishes' is a good informal close – it is friendly without being too familiar.

7 Affiliation. If you are writing on behalf of a

company, put the name in capitals here, otherwise forget this bit.

8 Signature Block. Your name and position, which allow you to indulge in a flowery signature since no-one actually has to read it to discover who you are.

Where LocoScript's templates come in

LocoScript is tailor made for letter writing. By now you must have written at least one letter with it – all the manuals and teach-yourself courses start by showing you how to create a document, type in simple sentences and print it out. However, there are several ways to use LocoScript to make repetitive letters simpler.

First of all, a quick refresher course on disc organisation and 'templates', starting from the familiar Disc Management screen. The highlight bar shows you which group you are currently in. Each group should have a document in it called TEMPLATE.STD; when you press the 'C' key to Create a document, your new document starts off as a copy of its group's TEMPLATE.STD.

This means that if you write a lot of similar letters, like credit chasing, you can write a standard form letter with the names and amounts left blank and store this as the TEMPLATE.STD for your credit chasing group. Then when you create a new document in that group, you always start with that basic form letter, and you just go through filling in the blanks. TEMPLATE.STD is a normal LocoScript document; you can edit it like any letter, rename it or delete it as you wish.

► A sample TEMPLATE.STD for credit chasing

Grouping it all together

Discs can have up to 8 groups for you to organise your files into – perhaps one group for invoices, one for final demands, and so on. You just use the cursor keys to move between groups and documents.

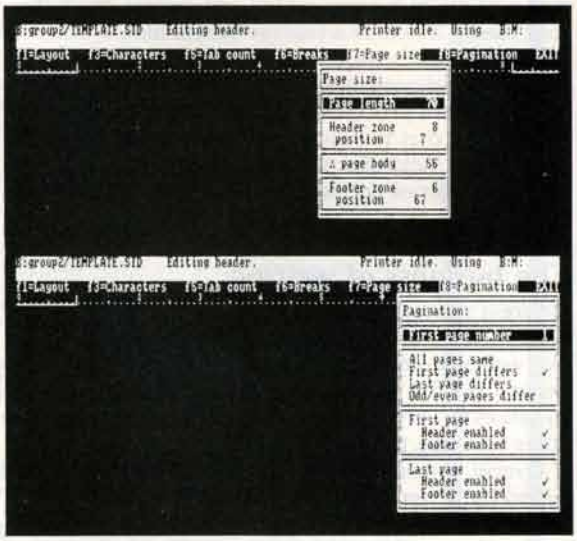
One catch is that groups with no documents in them are not shown on the screen at all, so you can't move the highlight bar into those groups. In the top third of the Disc Management screen is a list of the groups, with a highlight bar over the current one. To move to a new group, you hold the [SHIFT] key down and use the arrow keys; if you are in group 0 of a disc, [SHIFT]→ takes you into group 4, even if there are no files in group 4.

Each group ought to have a TEMPLATE.STD. The best way to create a new group is to place the cursor bar over any existing TEMPLATE.STD file and press the 'f3=Copy' key. The screen now asks you to select the 'destination group', so use [SHIFT] and the cursor keys to get into the group you want, press [ENTER], and bingo! Your new group opens up on the screen with its TEMPLATE.STD, which you can then edit as you want.

Headers and footers for letters

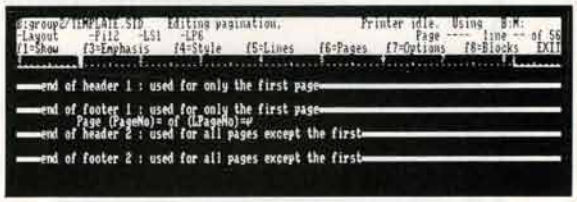
LocoScript's headers and footers are at times complex to use, and were covered fully in issue 2 of 8000 Plus. They are particularly useful when writing letters, as you can number continuation sheets automatically.

For multiple page letters, you may want to have at the top of each sheet (except the first) 'Page 2 of 4', or whatever the numbering actually is. LocoScript can handle this very nicely.



Edit your TEMPLATE.STD file in the group you keep letters in, and from the Editing screen, use the [f7] key, the 'Edit Header' option, [f7] again and finally [f7] yet *again* to get to the page size menu. Set this up to the sizes shown, which are good values for A4 paper. When this menu is OK, press [ENTER] to clear it off and then [f8] for the Pagination menu. Set this up too as shown.

Press [ENTER] to clear the menu off, and then [EXIT] which takes you back into the 'Editing Pagination' screen. Now you can set up the headers and footers.



For the first page, leave both the header and footer blank. Use the cursor down key to get into the header region of 'All pages except first', and type

Page = of =

Now place the cursor on the first equals sign, and put a 'This Page Number' code there, either with the [f6] key or by the short-cut ⊞PN. Place the cursor on the second =, and put a 'Last Page Number' code there, again either with the [f6] menu or by typing ⊞LPN.

All this magic means that when the pages are printed out, the first equals sign is replaced by the current page number, and the second equals sign by the number of the last page in the letter (ie. the total number of pages in the letter). If you have a letter longer than 9 pages, this method will go wrong – you will need to use == instead of just =, but otherwise it works in the same way.

Caveat Scriptor!

So now you can all write beautifully laid out, grammatically perfect letters. We at 8000 Plus expect to receive nothing but excellence in our postbag – we may start offering prizes for the worst offenders each month. You have been warned! A final piece of advice; don't forget to use a spelling checker for letters more than a paragraph or so long. EXIT

Boffin note

LocoScript's Groups are really the same thing as CP/M's User Numbers. If you start CP/M up, put a LocoScript disc into the drive and type DIR, all the document names in the first group will appear. If you type USER 1 and then DIR again, you will see all the documents in the next group. CP/M has 16 user areas numbered 0 to 15; LocoScript's 8 groups are in user areas 0 to 7. If you have deleted a letter with the [f6] key in LocoScript, it is marked as a 'Limbo' file; Limbo files for groups 0 to 7 are stored in the user areas 8 to 15 respectively.

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• NewWord is compatible with the commands and files of *Classic WordStar™*, plus the following important features:

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☆ 47,000 word English dictionary Spell checker/corrector
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STOP PRESS

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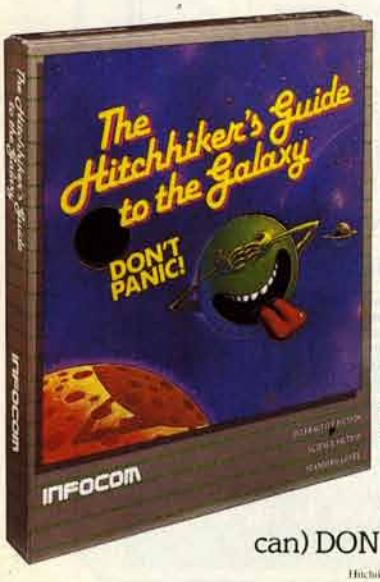

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And split your sides as your home is bulldozed by the local council. You'll laugh so much, it'll bring the house down.

Whatever happens (and just about anything can) DON'T PANIC! For all this will prepare you for a few dangers that are a little harder to swallow.

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FIGHTING WORDS

Will Arnor's new release poach PCW fans from Locomotive's word processor?

The PCW has been sold all along as a word processor, and it might seem silly to try and market an alternative to the LocoScript software. Arnor's approach is somewhat different, however. Their PROTEXT word processor aims to offer most of the features of LocoScript, but with a spelling checker, mail merger and a comprehensive set of utilities thrown in. Is it worth the investment?

PROTEXT
£79.95 • Arnor Ltd • 01 684 8009

Word processing, like typewriting, can be a very subjective thing. There are writers who claim they can't do anything unless they're sitting in front of their trusty Remingtons, others who favour Underwoods. I've known those who could only ever write with a stubby 6B pencil, and more recently those who don't believe in any word processor which uses pull-down menus.

In most cases, these prejudices stem from the first pen, keyboard or computer the writer used, so it's not surprising there are many fanatical LocoScript users who know of nothing else. Well, Arnor would have you think again and consider the virtues of their latest version of PROTEXT.

PROTEXT first appeared on the Amstrad CPC range and achieved notable success as being the only word processor which worked fast and efficiently and without recourse to CP/M. For the PCW version, though, Arnor have had to add many more features to make the transition from LocoScript worthwhile. To this end they've added a spelling checker, mail merger, a useful set of utilities and the ability to work on two text files at once.

Initial impressions

Protext is supplied as a single 3" disc, with a thick loose leaf manual, all housed in a robust black slip case. The manual is well written, is sub-divided into four main sections, and includes a quick-reference guide, a glossary and an index. The style of writing is informative without being patronising, and there is commendably little jargon in the text. There is a tutorial section to each chapter as well as reference lists of the commands. It would be nice to have seen a quick reference card listing the commands, as this is still easier than referring to the manual, but the on-screen help facility goes some way to offset this shortcoming.

Setting up PROTEXT is a very straightforward process, nicely automated by use of the program's own EXEC file utility, which is a more sophisticated version of CP/M's SUBMIT program. It allows the EXEC file to pause in mid flow and display prompts for disc swaps and the like. Once you've transferred the files from the master disc to two of your own (one for PROTEXT and its utilities, the other for the spelling checker), you can change the file which holds the initial set up to make use of the RAM disc on a PCW. This speeds the operation of the word processor.

Command Performance

Having set up your discs, you start PROTEXT by 'booting' your PCW with the copy of the master disc. The initial screen is divided in two, with a two line banner at the top of the screen and a command line strip about half way down. When you move into edit mode, the strip disappears and all but the top three lines of the screen are available for text.

You can do many things from command mode: copy files, format discs, rename your text, count the words, clear the edit screen and print a document, to name but a few. PROTEXT forms a kind of operating 'shell' around the word processor, and most of the jobs you need to do while word processing can be achieved without returning to CP/M.

There are over 60 commands available from command mode. Most have abbreviations to speed typing and many which have variations for slightly different functions. For instance, `PRINT` will print the current file in draft mode on the printer. You can add a filename to print a file directly from disc, type `PRINTQ` to print in NLQ, `PRINTS` to print to the screen (saves a lot of paper) or `PRINTF` to print to a disc file. All the commands are memorable which makes them much easier to learn than WordStar's.

Printing can be done in the 'background', meaning that you can print out one document while working on another. This is a very handy facility, particularly if you produce a lot of short correspondence on your PCW.

Getting at the editor

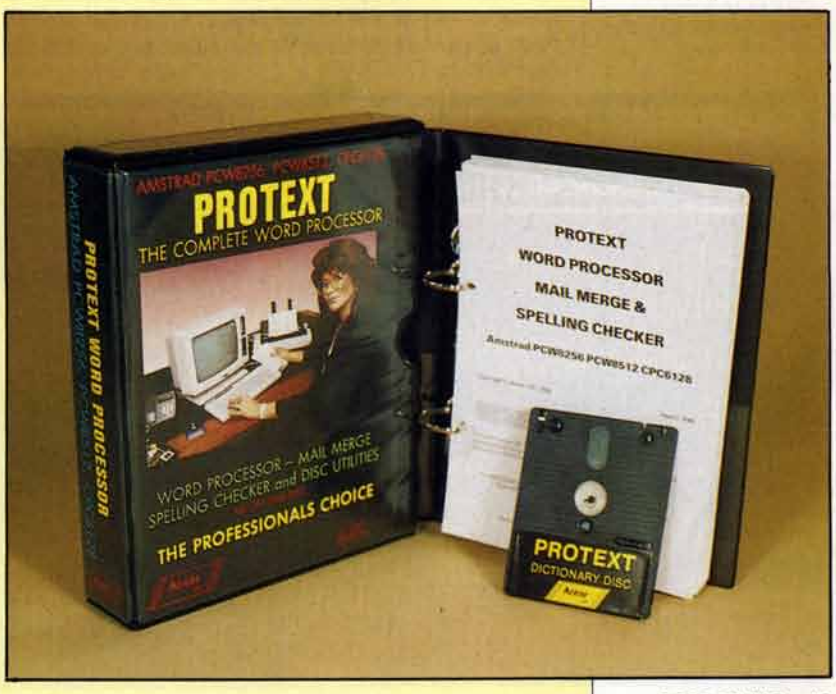
You press `[STOP]` to move from command mode to edit mode, and the command strip disappears from the screen leaving a two line banner and a single default ruler.

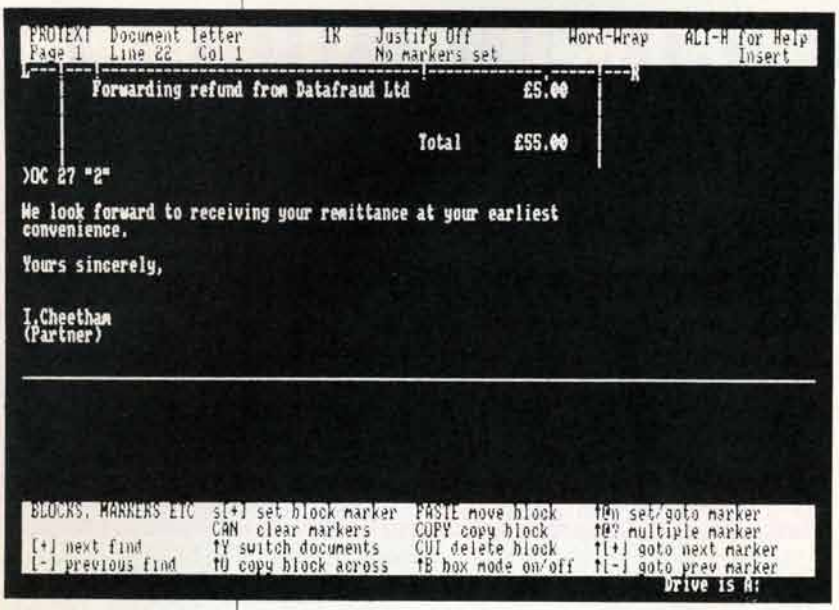
This banner shows several useful pieces of information: current document name and length; justification, insert/overwrite and word-wrap status; page, line and column number and number of markers set. The top line of the banner sometimes changes when particular commands are executed.

A PROTEXT ruler is much like a LocoScript layout, except that you can have any number in a document and each one is individual. This means that when you alter one ruler to change the format of the text below it, it doesn't affect any other ruler in the document. ►

MAIL-MERGING

One of the advantages of a word processor is that you can produce endless copies of the same text. It therefore lends itself very well to producing circulars or 'form letters'. All that's needed is a facility to insert different names, addresses, prices etc into the text. That process is known as 'mail-merging'.





▲ PROTEXT editing screen, showing section of HELP display

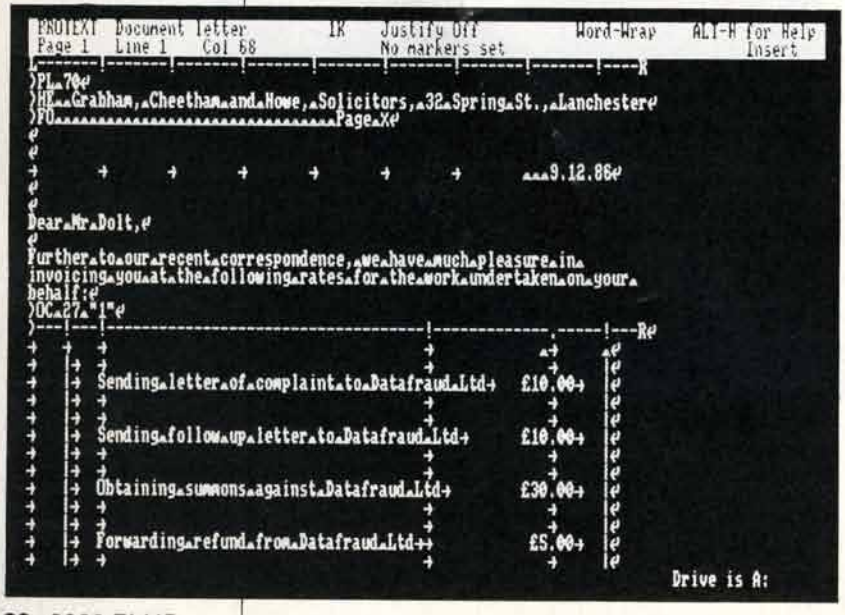
The editing cursor is controlled with the arrow keys, and movements are amplified with [SHIFT] and [ALT]. You can also move in blocks of paragraphs or screens, and to the beginning or end of the text. Scrolling the text with the cursor keys alone is quite slow, but when you move through it by the page, PROTEXT redraws the screen very quickly. You can also use the GOTO command from command mode to move directly to a given page number.

You can delete left and right, and to the start and end of a line. Any deletion is transferred into a delete buffer which can be recalled at any other point in the document. This is useful for moving lines of text, but you can also define a block of any size and move, copy, delete and save it to disc. When text is changed in this way, you have to reformat it with the [ALT]F command, which works fast.

PROTEXT can search your document quickly for any string of characters and replace it with another, using a variety of different options. There are also useful 'extras', such as transposing case, swapping two characters in one operation and redefining any character on the screen. Hard returns and spaces can also be displayed, in much the same way as with LocoScript.

Most of the functions within the editor are controlled using [ALT] plus one alphabetic character, but occasionally [SHIFT] and [ALT] are used together. Many commands are mnemonic, but you still have to be prepared to spend some time learning them before you can get the most out of PROTEXT. If you forget any of the commands you can call up four lines of help at the bottom of the screen, and page through a dozen of these mini-screens to find the command you want.

Section of a solicitor's letter as shown on screen, including display of hard spaces and returns ▼



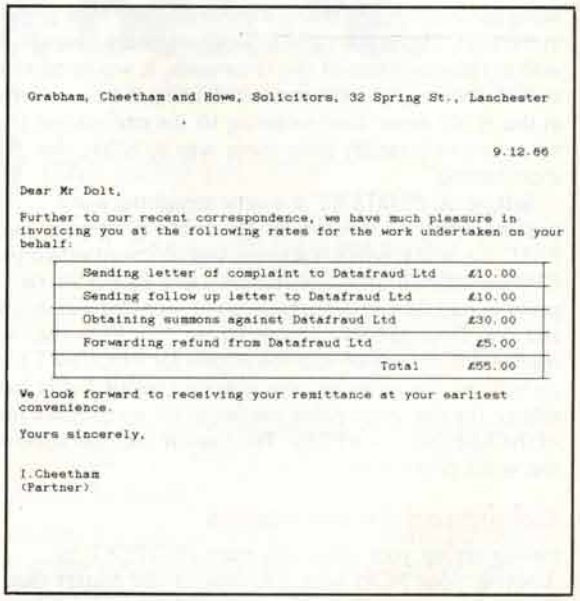
Embedded commands

As well as the [ALT] controls you use while editing, you can also insert commands into the text which are executed when the document is printed. These are known as embedded commands, and cover such things as margins, headers and footers (only single line ones), printer control codes and page numbers. They are also used to create control files for mail-merging.

Both embedded commands and short text phrases can be built into 'phrase' files. These can be loaded from and saved to disc separately from the rest of the text. Up to 26 phrases can be used in one document.

As an example, the screen shot of a solicitor's letter shows the >PL, >HE, >FO and >OC commands. '>PL 70' defines the page length as 70 lines, '>HE Grabham ...' defines the header, '>FO Page %' puts the page number into the footer and '>OC 27 "1"' sends a code to the PCW printer which changes the line pitch to 10 lines per inch.

The ruler is set up to ease the drawing of the table, which uses the techniques shown in last month's LocoScript article.



Grabham, Cheetham and Howe, Solicitors, 32 Spring St., Lanchester

9.12.86

Dear Mr Dolt,

Further to our recent correspondence, we have much pleasure in invoicing you at the following rates for the work undertaken on your behalf:

Sending letter of complaint to Datafraud Ltd	£10.00
Sending follow up letter to Datafraud Ltd	£10.00
Obtaining summons against Datafraud Ltd	£30.00
Forwarding refund from Datafraud Ltd	£5.00
Total	£55.00

We look forward to receiving your remittance at your earliest convenience.

Yours sincerely,

I.Cheetham
(Partner)

▲ Sample letter, including simple table

A better spell

Once you've written your epic, you'd better check the spelling, and PROTEXT comes complete with an adapted version of PROSPELL, which was covered in an earlier review. The PROTEXT spelling checker can only check a complete document, and you have to return to command mode to call it in. It's a shame Arnor couldn't have taken the opportunity to integrate the checker into the editor, so you could check individual words against its dictionary.

The spelling checker is fast (with a claimed speed of around 1800 words a minute) and the dictionary contains about 33,000 words. You can add your own words to it, but remember that the dictionary isn't intelligent. If you add 'import', it won't know 'imports', 'importation' or 'important'. This, of course, is true of most spell checker dictionaries.

Take a letter

The other major part of PROTEXT is the inbuilt mail-merger. This can take data from a database file or another PROTEXT file and combine it with a text document to produce a form letter, set of labels or other repetitive document. All it requires is that each piece of information in the database record (each 'field') is separated by a comma or a [RETURN] code.

```
Mr J.Foggett, $, 6 Doomsdale Way, Crunnock, $, Derbyshire, 23.40
Mrs M.Doobry, 'Footle', Grimble Drive, Truesockbury Wells, Hants, 59.95
Mr A.K.Twork, $, 32 Watery Bottom, Mr Stockport, Cheshire, 27.50
Mrs L.M.Dodo, 'Costa Bomb', Brown Lane, Twittering-on-Swill, Hants, 19.95
Mr D.Markation, $, 15 Limp Lane, Fandlesham, Oxon, 34.95
Mrs S.Cape, 'The Round House', Gumby, Mr Buxton, Derbyshire, 39.95
Mr L.De Ley-Gentleman, $, 63 Groundswell Lane, Upper Truxton, Essex, 42.50
Mrs M.T.Box, $, 34 Long Road, $, Channon, Beds, 29.95
Mr B.D.Aye, 'Watch Tower', $, Tregaron Point, St Ives, Cornwall, 15.00
Mrs S.Peshly, 'Rose Cottage', Cottage Rows, Grimply, Cheshire, 22.50
```

▲ The short datafile used to produce the mail-merged form letters

You can prepare the repeated part of the document exactly as you would any other text file under PROTEXT, and then call in the items in the datafile and combine or 'merge' them with it to produce a set of letters, labels or whatever.

You can arrange to print certain records only, certain fields from each record, or even parts of each field. The print control is created with embedded commands, as is the page formatting. The screen shot of a form letter shows how these commands are used.

The mail-merge commands within PROTEXT is very powerful. You can create variables to hold values from your datafile, and choose to manipulate them in certain ways depending on the value of an 'IF' statement, in much the same way you would do in BASIC. The statements in the control document work as follows:

- >CO indicates a comment line, much as a REM statement does in BASIC
- >DF defines the file which will provide the data for the mail merging process
- >RU reads in values for all the variables that will be used by the control program. There must be a value for each variable read into the program.
- >IF sets up a conditional statement. In the example, a letter is only printed if the customer comes from 'Hants'.
- >SV sets a variable. In the example, the value of 'rate' is set to 2 or 4 depending on the contents of 'balance'.
- >EL defines what to do if the IF condition isn't true. Acts as an 'ELSE' statement.
- >EI ends an IF condition, which may run over several lines.
- & is used to mark a variable within the text of the control document. It is used immediately before and after each variable.

```
Mrs M.Doobry
Footle
Grimble Drive
Truesockbury Wells
Hants

Dear Mrs M.Doobry,

Thank you for your recent order. Would you please note that postage
and packing is chargable on your order,  at the rate of £4. The total
outstanding is therefore £63.95, and I  look forward to receiving your
remittance as soon as possible.

Yours sincerely,
```

▲ Simple circulars produced by mail-merging within PROTEXT

Menu vs Command

There are two basic philosophies behind the controls of word processors. LocoScript, with which most readers will be familiar, relies on menus. To select a particular feature you call up a menu and make a selection from one of the options offered. This makes the program very easy to use but is not as direct as the other alternative.

A 'command-driven' word processor, such as PROTEXT, requires you to learn a series of key sequences, often [ALT] or [EXTRA] plus a letter key, to invoke particular features. While it is not as easy to learn a system like this, it is potentially a lot faster to use. The ease with which you can learn a command-driven program depends largely on the keys chosen, and how well they suggest the feature they control.

The best known command-driven word processor is still WordStar, and this program is renowned for the arbitrary codes chosen for its features. PROTEXT is a good deal better. Compare [ALT]F and [ALT]J (to format a paragraph and switch justification on and off), with WordStar's [ALT]B and [ALT]O-J.

```
PROTEXT  Document circular        IN   Justify Off          Word-Wrap   ALT-H for Help
Page 1   Line 1   Col 5                No markers set                    Insert
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
>CO SAMPLE FORM LETTER
>DF addrlist
>RU name addr1 addr2 town county balance
>IF county="Hants"
>IF balance<20
>SV rate=2
>EL
>SV rate=4
>EI
>SV total=balance+rate

&name&
&addr1&
&addr2&
&town&
&county&

Dear &name&,

Thank you for your recent order. Would you please note that postage
and packing is chargable on your order, at the rate of £&rate&. The
total outstanding is therefore £&total&, and I look forward to
receiving your remittance as soon as possible.

Yours sincerely,
>EI

                                                          Drive is A:
```

▲ How the form letter appears on screen, showing mail-merge commands and embedded variables

Verdict

PROTEXT is fast and well equipped. It provides spell checking and mail-merging normally only available with extra packages for other word processors. It does take a while to learn all the extra codes, but Arnor have gone out of their way to try and make this as easy as possible.

Once you've got to grips with the rather different approach to word processing, PROTEXT provides an efficient alternative to the likes of LocoScript and Wordstar. It remains to be seen whether it can hold its head up against the long awaited Locoscript 2. Time will tell.

PLUSES

- ⊞ Provides all the word processing facilities you're likely to need in one package
- ⊞ Lets you work with two documents at once
- ⊞ Text files are compatible with earlier versions of PROTEXT on other Amstrad micros
- ⊞ Puts a shell around the word processor which provides most common disc routines without returning to CP/M
- ⊞ Makes LocoScript look like a snail

MINUSES

- ⊟ Forces you to learn a new set of control codes
- ⊟ Doesn't fully integrate spell checker with text editor

RANGE OF FEATURES	■■■■■	PERFORMANCE	■■■■□
EASE OF USE	■■■□□	DOCUMENTATION	■■■■□

***8000 PLUS* VALUE VERDICT** ■■■■□

InfoWorld

Software Report Card

Cardbox

	Poor	Fair	Good	Excellent
Performance	☐	☐	☐	☑
Documentation	☐	☐	☐	☑
Ease of Use	☐	☐	☐	☑
Error Handling	☐	☐	☐	☑

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Cardbox is simply an electronic card-indexing system – a replacement for the cards on your desk.

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THE WRITE TYPE

An instant guide to picking the best printer for your needs

If you are starting to look around for a better printer for your PCW, you may be confused by all the jargon and not really know which features you need. Here is a quick bluff-your-way-in-printers guide to give you the confidence to look a salesman in the eye and tell him what he can do with his friction feed.

Don't forget that to be able to use your new printer with the PCW, you will have to buy a serial/parallel interface too. This costs about £55, and some suitable ones are reviewed elsewhere.

A tale of two printers

There are two principle types of printer: 'dot matrix' and 'daisywheel'. A dot matrix printer, such as the one supplied with the PCW, prints each character as a grid (or matrix) of tiny dots.

In draft quality print, the dots on the matrix are not very close (the fewer dots, the faster the printer can work), so the 'grain' is very noticeable. In high quality mode, more dots are printed per character, so the printing is slower but the dotted grain is less obvious.

When you write letters, you want to have the best quality print possible. Most letters are produced on typewriters, typewriter-style print is often known as 'letter quality'. Dot matrix printers cannot print text as crisply as typewriters, so their 'high quality' print is known as 'Near Letter Quality', or 'NLQ' for short.

A daisywheel printer uses a similar technique to a golf ball typewriter, except that the letter dies that are struck against the paper are formed on the 'petals' of a large daisy-shaped wheel. The wheel, like a golf ball, can be replaced to give a different range or style of characters.

There are other types of printer, like laser printers, but these are expensive (£2000 plus) and don't work with a PCW.

The pros and cons

Dot matrix printers can work very fast. The standard PCW printer is comparatively slow, and churns out about 50 characters per second ('cps' to the cognoscenti) in draft quality, and 11 cps in NLQ. Faster printers can approach 200 cps in draft, and 100 in NLQ (although you pay a lot for extra speed).

As far as a dot matrix printer is concerned, it just produces lots and lots of dots. The fact that these dots look like characters is unimportant to it. Therefore it is possible to print out *any* arrangement of dots on the page, characters or otherwise, which is how your PCW printer can produce graphs and patterns as well as text.

Daisywheels on the other hand are usually slower. Budget price printers (£300-400) check in at around 20 characters per second, with the costlier ones going up to 40 cps. The main drawback of a daisywheel printer is that it can only print the 96 characters that are moulded onto its print wheel. This means that it will not be able to print anything other than text, although you can usually print emboldening, underlining, superscripts, backspaces and so on quite happily. You can also change the pitch of the text and sometimes use proportional spacing.

Although you cannot do italics or Greek characters normally, you can always buy alternative print wheels with a different characters sets (or different typefaces). It's a real bind to print italicised phrases in a daisywheeled letter, though, as you have to make the printer pause, exchange print wheels, print the phrase, replace the old wheel and carry on.

Of course, you can go on using your old PCW printer as well as a daisywheel, so you can do graphs or draft prints on that.

Extras

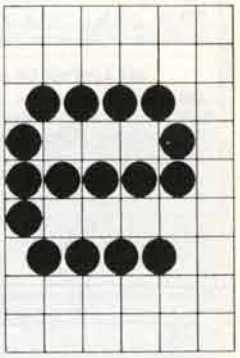
You can usually buy a range of accessories for both dot matrix and daisywheel printers. Dot matrix printers usually come with a continuous stationery feeder as standard, whereas you have to buy one as an extra on many daisywheels.

Cut sheet feeders, which drop single sheets of A4 into the printer automatically, can be pricey. Cheap ones often jam.

Finally, some printer models offer you a choice of 10" or 13-15" carriages – choose the latter if you want to use wide listing paper, or print on A4 sheets sideways.

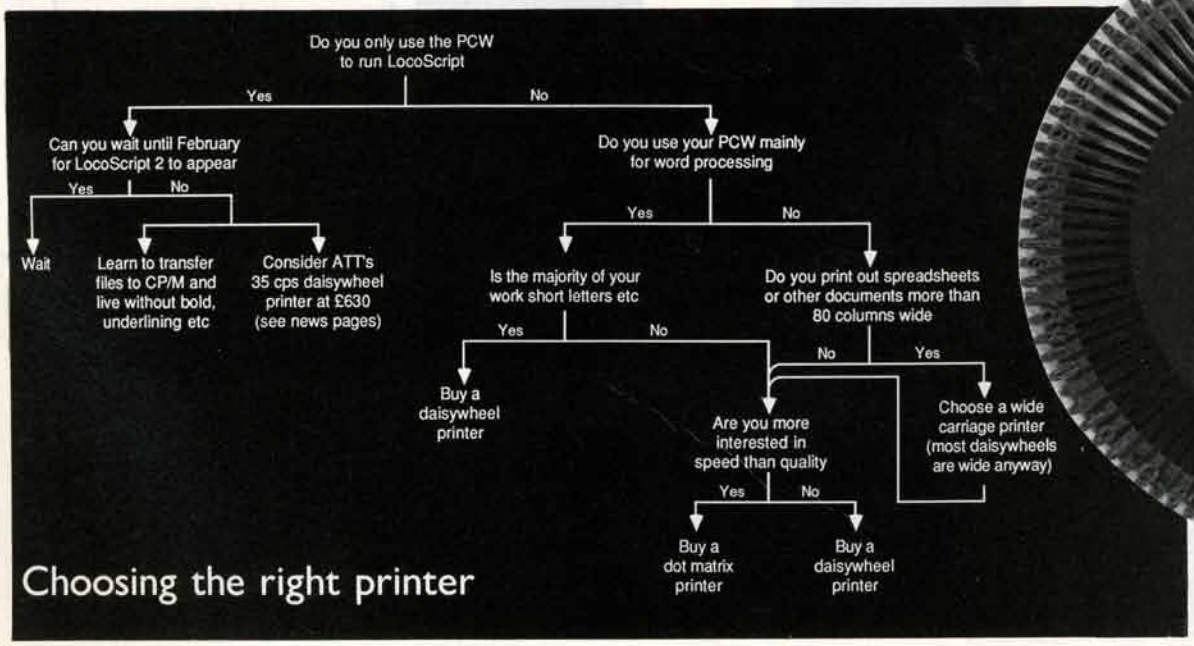
LocoScript documents

At the moment, you cannot print LocoScript documents directly onto printers other than the standard one. Locoscript 2, coming in February, will rectify this, but until then you will have to use the method outlined in this month's printer review article.



▲ A dot matrix 'e'

▲ A daisywheel print wheel



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PLAYING YOUR CARDS RIGHT

Smartcard tries to be the database with the friendly face. We examine its features.

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The analogy that's often made for a computer database is a card index – those boxes of cards from Smith's which are always just too small for the number of items you want to store, and soon get thumbed to a premature death. The trouble with databases which mimic this kind of file is that they are often a lot less easy to use than the card original. Smartcard aims to be both friendly and efficient.

Smartcard is a conventional card index database with good sorting and searching facilities. It can handle up to 32000 cards, although you're likely to run out of space on the disc to store the cards long before then, of course.

The package is supplied as a 3" disc and an A4 laser printed manual which is well written and informative, and bound in a plastic wallet.

Running a database with Smartcard can be divided into three main areas: defining the record card, editing the card to add and amend data, and printing reports containing that information.

Defining the card

The first thing you have to do is to define the fields, or data items on your record card. Smartcard is run by a series of menus, and selections from these menus define the title, type and length of each field. You can have up to 26 fields on a record and each field may be any of three types: 'X', 'L' or 'N'.

Type X fields form the majority on most record cards, as they can contain up to 64 alphanumeric characters. Any field which doesn't have to take a number is normally made type X.

Type L fields are used for most numbers, including money values, and can be up to 12 digits long, with two decimal places. This should be large enough for anyone.

Type N fields are used for smaller whole numbers, up to a value of 9999. This type of field is ideal for serial numbers.

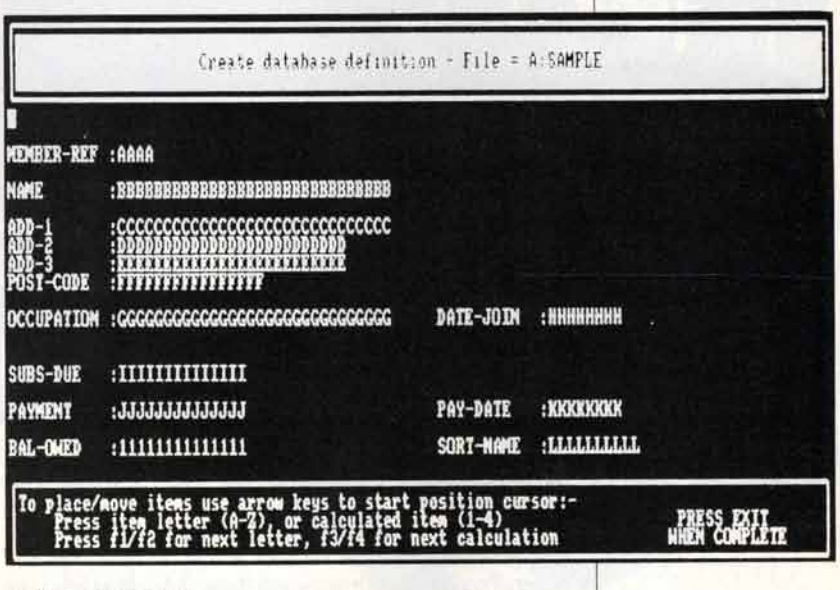
Four of the fields on any record can be defined as 'calculation' fields. Each calculation is governed by a formula, which is made up of field letters and the four arithmetic operators. So, for instance, the formula A+B/D might be assigned to field H. Whenever values are then typed into fields A, B and D of a record, the corresponding value of field H is calculated and displayed automatically.

You can move fields around the card while you're defining it, and alter the length of X fields, but once you start adding information to your file, the record design is fixed.

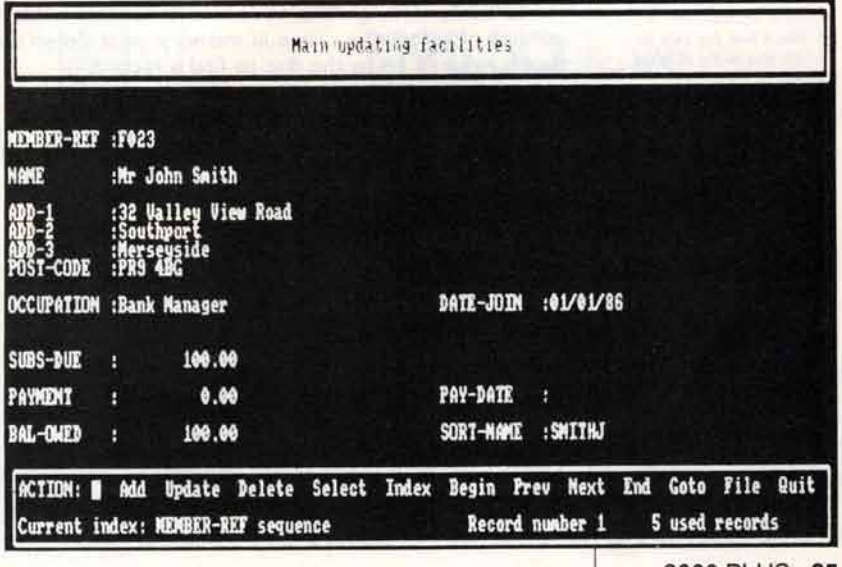
There is also no way of adding background text to the card, for notes or titles, and each field name (the words 'SURNAME' or 'TEL NO') is restricted to ten upper-case characters only.

Filling the box

Once you've defined your record card, you can start to add data to it by selecting the 'Main updating facilities' option from the main menu. A blank record card is displayed and a horizontal menu at the foot of the screen offers a number of options. Add and Update are two of the most immediately useful, and each of them allow you



▲ The sample record definition described in Smartcard's tutorial



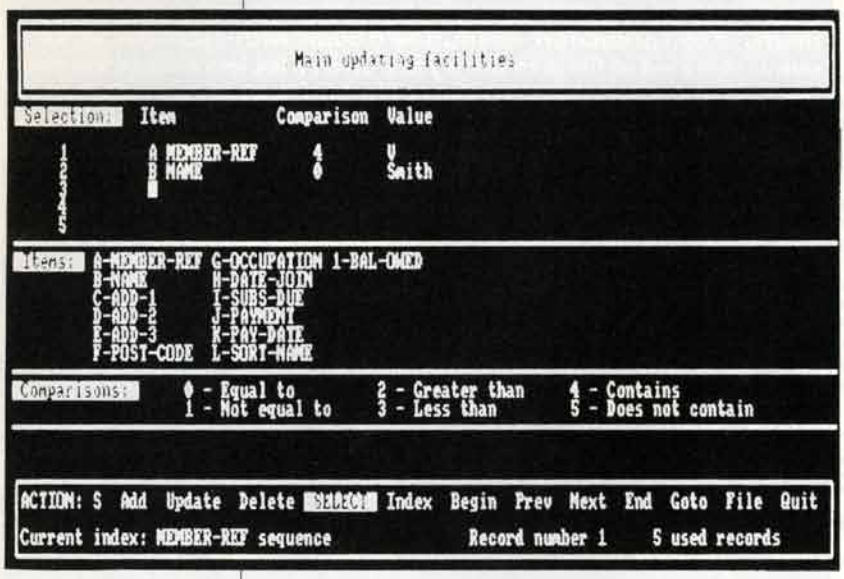
▼ Smartcard's main record screen, showing the menu

SHUFFLING THE CARDS

Two of the main functions which distinguish a computer database from its manual equivalent are sorting and searching. It is these two tasks which take up a large part of a database's time.

Sorting is the process of putting the records in order. In an address list, for instance, you would most probably want the records to be alphabetically ordered by surname. When looking through them, you could then browse from Smith to Smythe, without coming across Hatcher in between.

Searching is the process of looking through the file for a record with a particular entry. This might be a surname, a membership number or a combination of entries. You could, for instance, look for all records with the surname Johnson, who live in Manchester and haven't yet paid their membership fees. You should begin to see why the Data Protection Registrar is interested in the number of people who hold their data in this way!



▲ When you want to define a subset of your file, you call up this selection screen

Jargon Buster

There are three main terms which are used when describing databases. If you think of the card index analogy, they each have a physical equivalent.
A **file** is like the box in which you store all your cards.
A **record** is like a single card within the box.
A **field**, or **item**, is a single piece of information on the card, eg. a name, telephone number, or date.

to move through the fields of your record, changing or adding data.

Each file is indexed on one of three fields (you may specify which), and the records are presented in that order. You can switch between these indexes at any time so, for instance, you might start by arranging the file in Surname order, and then switch to Town or County if it became more useful.

You can scan through the records backwards or forwards, and move straight to the beginning or end of the file. You can also go to a specified record by entering the contents of its current index field. Smartcard holds a number of records at a time in memory, so it doesn't always need to go to the disc to find a record.

In addition to Smartcard's sort and search features, you can also select a subset of records for viewing or printing out. This is done on a separate screen, and you can specify up to five fields which the database will check before presenting the record. This is a very versatile system, and doesn't seem to slow the database down appreciably.

Reporting back

When it comes to printing out the information in your file, Smartcard isn't as strong as it is in other areas. You can define the length and width of the printed page, which fields are to be printed from each record and even which codes are required to set the typeface you want to use. What you can't do, though, is to add any text to your report (other than a title).

Fair enough, it is only a database after all, and those kind of functions should be provided by a word processor. That argument would be OK if it were not for the fact that you can't export data from Smartcard to a disc file. Without this facility, you can't incorporate data from a Smartcard file into any word processed document, for example to form the basis of a mailmerger system.

It's a shame this area of the program isn't up to the standard of the rest, as it does limit its range of application.

Verdict

Smartcard is a fast, versatile database, which is rather easier to use than to describe. There are a couple of features which are not quite as friendly as the rest, such as the inability to put extra text on the record card, and the short length of field titles which force abbreviations in many cases.

Perhaps more important is the lack of any link between Smartcard and word processors such as LocoScript, Protext or WordStar. You can't export the data in your file so that it can be mail-merged to produce form letters or reports, and the reporting facilities with the program are limited.

If you just want a simple card-index replacement, with sophisticated searching and sorting, Smartcard is well up with the best. EXIT

PLUSES
- ⊞ Good clear screens
- ⊞ Plenty of on-screen help
- ⊞ Fast and high-capacity
- ⊞ Easy to use

MINUSES
- ⊟ Can't put background text on record card
- ⊟ Can't put background text on printed reports
- ⊟ No way of exporting data for mail-merge

RANGE OF FEATURES	■■■□□	PERFORMANCE	■■■□□
EASE OF USE	■■■■□	DOCUMENTATION	■■■■□

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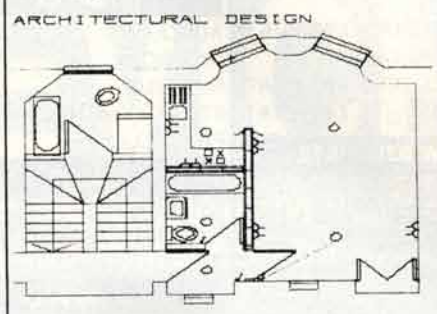

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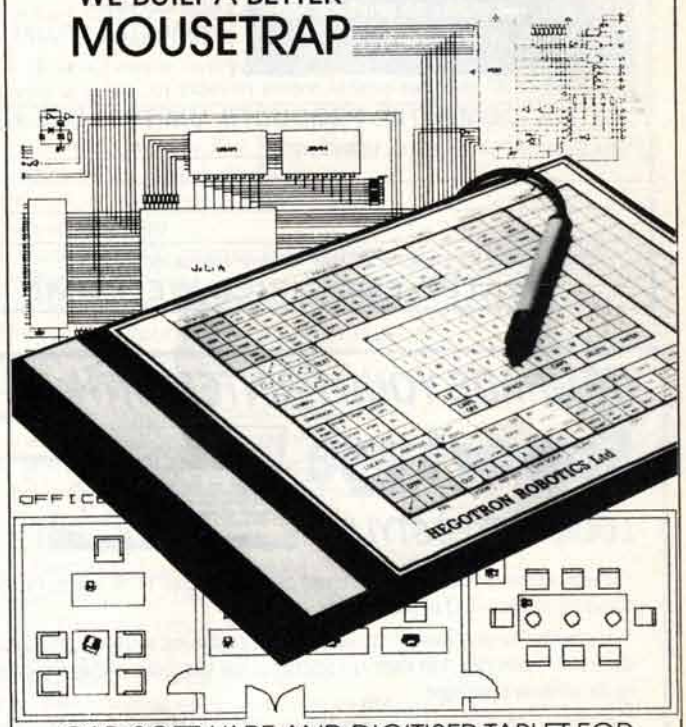

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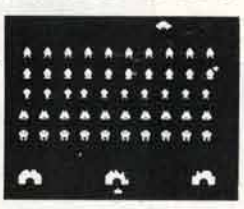

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FIENDISH DEVICES

Ben Taylor finds out how the PCW controls serial and parallel interfaces for printers and other hardware

Since this issue of 8000 Plus deals with connecting up non-standard printers to the PCW, it seems appropriate to look at the facilities that CP/M provides for talking to external pieces of hardware.

For all its higgledy-piggledy design in many areas, CP/M does present a consistent and quite rational interface to the outside world, through what it calls 'devices'. Most software which needs to use the external hardware (such as a printer or telephone modem) will do all the device handling automatically, but it is useful to know what CP/M does, in case things go wrong.

Through the door

At the heart of the PCW is a mass of silicon chips, which by themselves are of little use – you couldn't send them instructions without a keyboard, and you couldn't see what was going on without a display screen. The channels by which any computer communicates with its user are very important.

First, an analogy. Imagine an office where there is a central open plan area, with doors leading off it. One door labelled 'Fred Bloggs' goes to your boss's office and one labelled 'Edith Snooks' to the managing director's office. When you began work, you were taught which door leads where.

However, one night the MD is caught embezzling funds and is sacked. Your boss is promoted to MD but doesn't want to change offices, so now you have to get used to the MD's office being labelled 'Fred' rather than 'Edith' and being through a different doorway. All memos, questions, decisions and so on are routed through this new doorway, but as far as the workers are concerned nothing has really changed; there is still an MD taking decisions through a doorway.

The insides of the PCW are much like this central open plan office. It has doorways to and from the world outside through which it sends its data, and these doorways can be changed around depending how you want your PCW to work.

The DEVICE command

Getting back to CP/M, these 'doorways' are the 'devices' mentioned earlier. There are two kinds of device – 'logical' and 'physical'. Back to the office analogy, think of the post of managing director as a logical device, but the person who is the MD at any time as a physical device. It doesn't matter *who* is MD physically, as long as someone does the job.

The PCW has several input and output tasks that need doing. It needs to receive its commands from the user, and display its replies somewhere, and it needs to have somewhere to send printer output. As a refinement there are also two auxiliary channels, one for input and one for output, which can be used if you need to read from and write to two things at once. These tasks form the 'logical devices'.

Now think of what hardware you have – the physical things you can touch, or 'physical devices'. There is a keyboard, a monitor screen and a printer. If you have bought an interface unit for a new printer or a modem, you will also have a Centronics (parallel) and a Serial interface at your disposal. It only remains to work out which physical device corresponds to which logical device.

Every device, logical and physical has a name. The logical devices are:

CONIN:	CONsole INput (where command lines are read from)
CONOUT:	CONsole OUTput (where responses to commands are displayed)
AUXIN:	AUXiliary INput (for receiving input from other computers)
AUXOUT:	AUXiliary OUTput (for sending output to other computers)
LST:	LiST device (where everything for printing is sent)

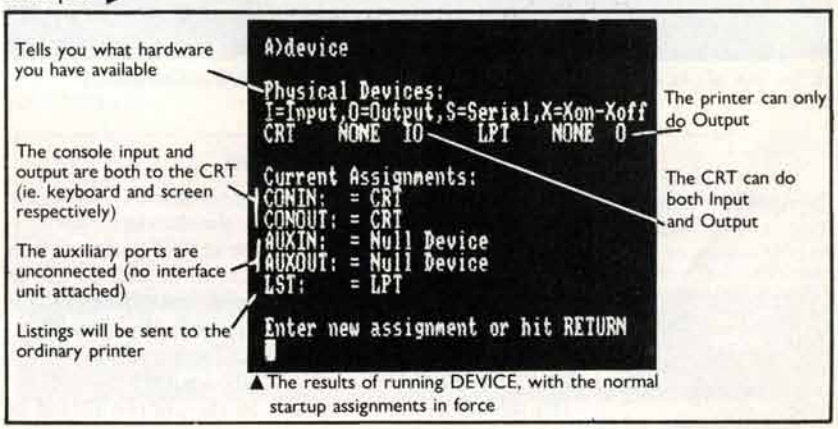
The physical devices are:

CRT	Literally, the Cathode Ray Tube. Means the screen if an output device is expected, or the keyboard if an input device is expected
LPT	The standard PCW printer (stands for Line PrinTer)
SIO	Serial Input/Output port if you have one
CEN	CENtronics output port if you have one
NUL	The 'null' device, ie. nothing at all

Within reason, any physical device can be associated with any logical device. The only restriction is that the physical device in question must be of the right type – you can't assign the printer to the console input, because printers can only deal with output. The command which tells the PCW which device goes where is, not unreasonably, DEVICE.

Find side 3 of your PCW master discs (titled 'Programming Utilities') and copy DEVICE.COM onto your CP/M work disc. Now try typing `DEVICE [RETURN]`, and you will see a screen of information come up. This tells you which physical devices are currently assigned to which logical ones, as shown in the example, and gives you a chance to change them. For now, press `[RETURN]` to return to the A> prompt.

If you have a serial/parallel interface unit attached, you will see that the PCW automatically assigns SIO to both AUXIN and AUXOUT for communications. Otherwise they are assigned to NUL (the null device), as in the example. ►



▲ The results of running DEVICE, with the normal startup assignments in force

SETSIO and serial interfaces

While on the subject of connecting printers up through the serial/parallel interface unit, some more details on the serial interface are in order.

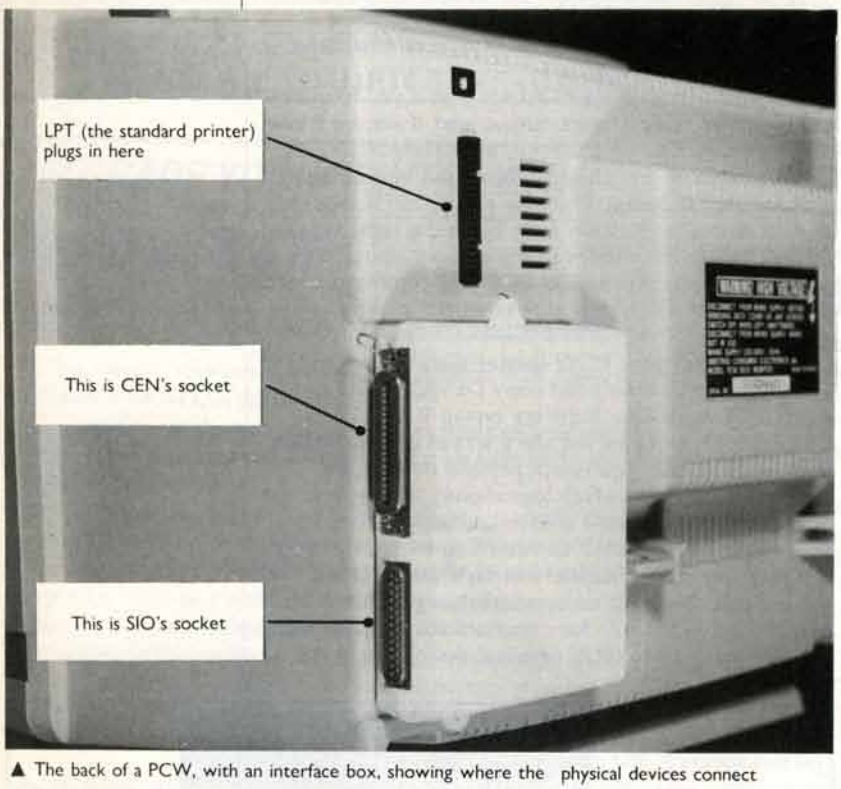
If you have a choice of using Serial or Parallel operation for a device (eg. a printer), choose parallel as it is much simpler to use. Communications lines need to use serial interfaces, but the commands for configuring the interface will be in the software itself – this includes Amstrad's own MAIL232 program on side 1 of the master discs.

However, if you are forced to use a serial printer you will need to get to grips with SETSIO. Like DEVICE.COM, SETSIO.COM is to be found on side 3 of the master discs – copy it onto your work disc. Now inspect your printer manual to determine what the required characteristics of the line are to be. Printers often have a row of tiny switches ('DIP' switches) so that the you can choose your own characteristics. Suppose you, or someone else, have set the printer to work at 2400 baud, 7 bits per character with 1 stop bit, no parity, and XON/XOFF protocol.

If you didn't understand that last sentence, you will see why you are well advised to avoid serial interfaces. This is not the place to explain such terms, but just make sure the words correspond to the printer manual's. Then type `SETSIO 2400, BITS 7, STOP 1, XON ON, PARITY NONE [RETURN]`

This sets up your PCW serial interface to match your printer's, so the two can communicate. If you get something wrong, you can change a single entry (like speed) by, for example, `SETSIO 2400`**, which alters the baud rate to 2400 while leaving everything else unchanged.** `SETSIO [RETURN]` **by itself lists out the current settings of the serial interface.**

Redirect the listing output to the serial interface with the command `DEVICE LST:=SIO`**, and away you go.**



▲ The back of a PCW, with an interface box, showing where the physical devices connect

Changing things around

Now we can use DEVICE to have some fun (if CP/M can ever be fun). As you now know, the standard PCW printer is a physical device known as 'LPT', and can only do output jobs. The PCW expects to be able to use an output device for its console output, and although this is normally the screen, it can be changed. Any device capable of output can do the job. Type

`DEVICE CONOUT:=LPT [RETURN]`

This directs all console output to the printer instead of the screen, so the screen appears to go dead and your CP/M session carries on as normal but on the printer instead. Note the direction of the command: it is always DEVICE *logical device name=physical device name*, and all logical device names have colons after them.

Type `DEVICE CONOUT:=CRT [RETURN]` to get the screen back again. You can actually combine these commands by typing `DEVICE CONOUT:=CRT,LPT [RETURN]` which sends the console output to *both* the screen and the printer, providing you with a hard copy of your work session for later reference.

A particularly useless example is `DEVICE CONOUT:=NUL`, which just kills the screen dead. All commands you type will work, but the screen will not echo them – this is useful to programmers who want to prevent passwords being echoed on the screen as they are typed.

```
A)SETSIO
 9600 Bits 8 Stop 1 Parity none Xon off Handshake on

A)SETSIO 2400, BITS 7, STOP 1, XON ON, PARITY NONE
 2400 Bits 7 Stop 1 Parity none Xon on Handshake on

A)
```

▲ Before and after a SETSIO operation

Sending files to printers

The most important use of DEVICE is to allow the PCW to send text for printing to printers other than the standard one. When the PCW prints a file it sends it to the device LST: (a logical device, remember). This is usually attached to the physical device LPT, ie. the standard printer.

To hook up a different printer, you will need to buy a serial/parallel interface for your PCW, which slots on to the back of the machine. This is because the standard printer is specially built, and other printers cannot be plugged directly into its socket on the PCW.

Slot the interface on while the PCW is turned off, and then start CP/M normally – as it starts up, CP/M looks around and registers the presence of the new interface on its back. Suppose your printer uses a Centronics interface, as most do, then to send printer listings to it just type

`DEVICE LST:=CEN [RETURN]`

You will see that in DEVICE's output the new physical devices SIO and CEN are listed, which weren't there when the interface box wasn't connected. From now on, all printed output goes down the Centronics line to the new printer, until you switch back by typing `DEVICE LST:=LPT`. If you are using a serial interface instead of the Centronics, use SIO instead of CEN throughout. So to print a file called TEST.BEN, type

`PIP LST:=TEST.BEN`

A final catch is that if your printer cannot print, for example if it runs out of paper, and you try to send a file to it then CP/M will give an error like 'CEN not ready - Retry, Ignore or Cancel?'. Get your printer ready and press R for Retry – if you press C for Cancel, you will find that CP/M has assumed the Centronics line is broken and disconnected it. Typing `DEVICE` will reveal that LST has become attached to the null device, and you will need to do another `DEVICE LST:=CEN` before you can print again.

Simpleton note

Don't use a sledgehammer to crack a cliché – if you want to echo all screen output to the printer to record a session, use [ALT]+P from CP/M. DEVICE CONOUT:=CRT,LPT is a much harder way of doing much the same thing.

PUTTING ON THE STYLE

GRAMMATIK
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It takes a brave writer to admit to a shakey knowledge of English grammar, or to the odd tautology or archaism. It's even harder to stomach the thought that a mere computer program might be able to do something about it. Such is the case, however.

Grammatik works much like a spelling checker. It takes a finished LocoScript or WordStar file (a LocoScript file must be saved as ASCII) and checks each word or phrase against a set of 'real dodos' in either of the dictionaries supplied.

There are about 500 words and phrases in the main dictionary and a further set in the 'Sexist' one, which lists 'gender specific' terms (lovely phrase). Before using Grammatik, you should run your text through a spelling checker, as the Optronics program assumes everything is spelt correctly.

You can use one or more dictionaries at a time, and can choose what to do with problem phrases. At it's most basic, Grammatik will report each word or phrase it matches in its dictionary, tell you what it thinks is wrong with it and usually offer an alternative. There are 18 categories of error, ranging from trite or redundant phrases to vague adverbs and trademarks (such as 'Xerox').

The basic check doesn't leave you with any permanent record of your grammatical blunders, but there are several other options which get around this. You can direct the messages from a Grammatik check to a named disc file, which can then be viewed or printed out at your leisure. Alternatively, you can copy your original file to a new one with Grammatik's code letters added at the offending points in the text. This is probably the most useful option as you can then re-run your word processor and edit the phrases directly.

At the end of the check, Grammatik provides a number of statistics about the text, including a word count and average word and sentence lengths. This is handy if you're prone to write long convoluted sentences.

As well as the supplied dictionaries, you can construct your own, and utilities are supplied to add new words and to sort them into alphabetical order. User-created dictionaries are particularly useful if you want to check for jargon. The only trouble is, you have to know which words in your chosen field are legitimate terms and which need to be added to the dictionary.

The proof of the pudding

To check Grammatik's effectiveness, I compiled a 'badly written' paragraph (it wasn't easy, but after a lot of effort...) to see how many blunders it would pick up. The results are quite interesting.

Grammatik ignored 'Twas', which I would have thought was an unpleasant archaism. Obviously there are archaic words and archaic words. It spotted the repeated 'this' in the second line, however, and the sexist dictionary didn't like postman (suggesting 'mail carrier' instead!).

It threw up its hands at 'for', as it doesn't like prepositions at the end of sentences, and thought 'firstly' should have been 'first'. I'd agree with this, but wonder why it wasn't equally upset by 'secondly'.

```
Twas earlier this year I first ran Wordstar (a complete lie - but
fine for this this kind of testpiece. The postman delivered it
early one Monday, saying he'd a parcel I'd have to sign for.
There were two things I asked him:
     firstly, why had it taken for ever and ever for it to arrive
and secondly, why had the package broken open.
He replied that he did not know the answer. I had to leave it at
that, as I could hear a funny noise. I must of left the Hoover
going or something as I seldom ever have strange noises in my
house - I won't give 'em house room. I was quite pleased with the
word processor, though I still have a number of quibbles.
```

▲ The 'bad grammar' file before the Grammatik treatment

```
Twas earlier this year I first ran Wordstar (a complete lie - but
fine for this this ?£dkind of testpiece. The postman ?£gdelivered it
early one Monday, saying he'?£gd a parcel I'd have to sign for. ?£u
There were two things I asked him:
     firstly,?£u why had it taken for ever and ever for it to
arrive and secondly, why had the package broken open.
He ?£greplied that he ?£gdid not know the answer.I?£p had to leave it at
that, as I could hear a funny noise. I must of left the Hoover
going or something as I seldom ever ?£rhave strange noises in my
house - I won't give 'em house room. I was quite ?£vpleased with the
word processor, though I still have a number of ?£wquibbles.?£b
```

▲ The same file with the notes Grammatik inserted

All the 'he's were flagged as gender specific, and in certain circumstances this could be right (think of the pronoun associated with 'child' or 'author', for instance). It does show that you should be prepared to ignore problems which are thrown up in error, though. You do need to take some of Grammatik's advice with a pinch of salt.

The checker found the missing space at the end of the fifth sentence, but happily passed 'Hoover', which is a trademark. 'seldom ever' is a redundant phrase and was noticed by Grammatik, and 'quite' was rightly thrown out as a 'vague adverb'. 'number of' is a misusage and was flagged as such and finally the program spotted the unclosed bracket early on and showed it as an error at the end of the check.

COURAGE OF CONVICTION

I know you're all dying to know how well 8000 Plus does under such scrutiny. Well, I ran this article through Grammatik having spell-checked it but otherwise having left it 'as is'. Apart from the errors quoted in the text, it didn't like 'WordStar' or 'LocoScript' because of the capital letters in the middle of each word. It also pointed out that many people use 'further' when they mean 'farther' (although I doubt this is still common usage) and confuse 'advice' with 'advise'.

It thought 'a lot of' was too wordy and 'quite' and 'very' were too vague. It also threw up 'write' as improper usage for no apparent reason. Lastly, with a touch of humour, it listed 'Optronics' as a wordy phrase.

Verdict

Grammatik can be very useful if you use it in a particular way. As a general guideline to style problems or particular 'glitches' in your grammar, it is quick and efficient. The phrase dictionary is a good basis on which to build, though not really complete enough in itself.

The danger really comes if you're tempted to take its advice too literally. As the manual freely admits, we're still some way away from a style checker which can understand the context of a sentence and make informed suggestions on improvements. Until then, Grammatik is useful, though expensive in comparison with spelling checkers.

EXIT

PLUSES
- ⊞ Shows up grammatical problems you never knew you had
- ⊞ Marks up existing text for re-editing
- ⊞ Lets you build up your own jargon dictionaries

MINUSES
- ⊟ Needs to be used 'intelligently'
- ⊟ Can't spot errors in context
- ⊟ Expensive

RANGE OF FEATURES	■■■■□	PERFORMANCE	■■■□□
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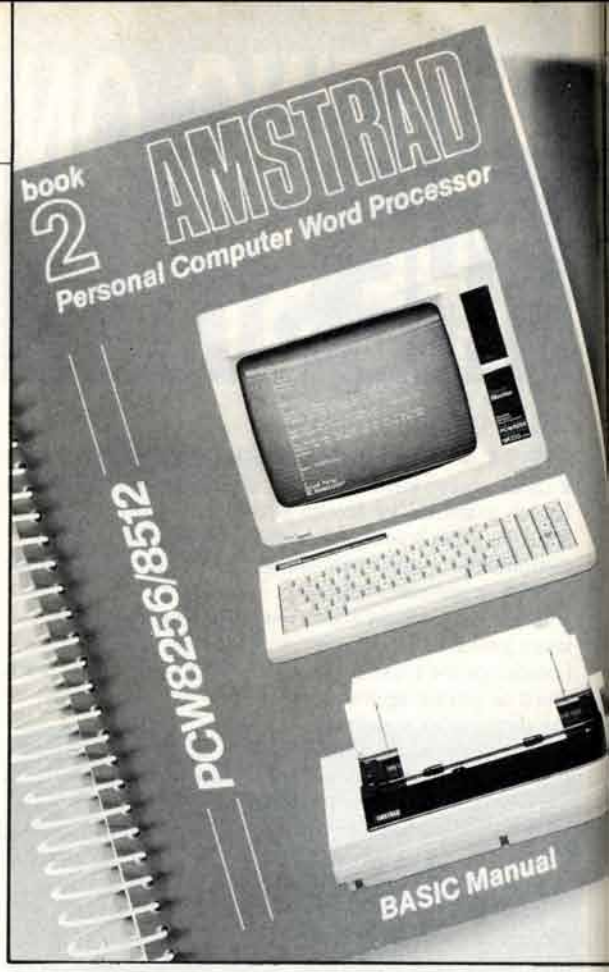
BIRTH OF A WRITER

In which David Ford's overdraft buys a PCW, ousts LocoScript, takes over a small business and gives him spelling lessons

A little over a year ago I acquired a PCW 8256, my excuse being that I wanted a word processor for writing reports in my job as a management consultant. I could have purchased the disc drive and software that I would have needed to convert my previous home computer for the task, but this would have cost more than half the price of a new PCW and the resulting system would not have been as flexible nor had as much serious software support. The PCW machine with its own monitor, disc drive, and a comprehensive business oriented BASIC language seemed just what I wanted, so I saved hard for an overdraft and bought one.



First Love

LocoScript didn't seem too difficult to get into, despite the inconsistencies between the manual and the actual program, and after I was sent version 1.2 I even managed to number the pages! But the honeymoon was soon over. I began to get frustrated with the slowness of LocoScript. My caffeine intake was steadily rising to danger level with the numerous cups of coffee made whilst waiting for LocoScript to merge a longish document, or scroll to page 22 where I had finished the previous night. I also got fed up with having to re-boot the system every time I wanted to swap between LocoScript and BASIC which I use for a number of routine tasks using simple programs – why didn't they write LocoScript to work under CP/M?

A third problem was personal. I have an incurable hereditary ailment – very bad spelling. In the past when I had drafted reports I had been able to disguise the appalling spelling with an equally appalling hand writing. Now the clarity of the printed word brought an equal clarity to my own inadequacy. I waited for LocoSpell, and waited, and wrote to Amsoft. And waited. Spring 1986 came and I stopped waiting. I bought NewWord which had its own spell checker and mail merge capability and consigned LocoScript to the back of the draw. Now I could stay in CP/M all the time, use NewWord as a text editor for basic programs and keep a check on that spelling.

I paid £70 for NewWord, but ended up spending £110. NewWord's spell checker will not work very well with an unexpanded 8256. The 'M:' drive is not big enough to hold the dictionary (136k) let alone the other files, so the spell checker must reside in the 'A:' drive with the document being checked in 'M:'. But with the other NewWord files in the 'M:' drive there is little room left for a document to be spell checked.

Getting into NewWord itself was not accomplished without problems. But after customising the keyboard using the SETKEYS utility, and spending a couple of days sorting out a printer driver which, with some jiggery pokery, got at least 85% of the PCW printer functions to work (alas, not proportional spacing) the only abiding annoyance remained the lack of background printing, something I decided to remedy with a print spooler.

More ways to skin a cat

Aarghh!! Re-booting the system for the third time from an irrecoverable system crash, I reluctantly conclude that the spooler worked – but not with NewWord. But as the sage said, every cloud has a silver lining and this setback lead to an investigation of a rather odd public domain program called SCRIVENER. Using Scrivener I found that I could write a program (task file) which acted as a printer driver, and bypassed the partially successful printer drivers of NewWord. Now I could take a NewWord preview file, pass it through the Scrivener printer driver and spool it to the printer. The PCW printer now has all of its LocoScript facilities back, the spooler works and I can work away at the keyboard whilst the printer does its own thing!

The purchase of NewWord has opened up a new hobby – writing. I write tens of thousands of words every year for my work, and now I have the PCW to hand to keep my appalling spelling in check without the aid of a secretary, why not try my hand at writing? I sat down and began to write. Two thousand words later (well, actually

Spooler and NewWord

It is actually possible to modify NewWord to work with Spooler normally, without recourse to Scrivener's delights. This involves 'installing' NewWord specially, and you'll find details in a TipOff published in issue 4.

Bodybuilding for elderly PCWs

To give NewWord a bit of room to breathe, I removed the back from the PCW in search of chip sockets and dip switches, in order to expand the 8256's memory to the full 512k. Chip sockets, eight – dip switches, nil. I had an early version of the PCW (will it become a collector's item?) and fitting the extra 256k of memory would require surgery. Friday morning the local computer shop promised to do the job. Four hours and £10 an hour later, '8256 (and-a-bit)' was back on my desk and ready to go.

A quick check of the directory revealed a strange phenomenon – some of my files had grown. I had heard of work expanding to fill the time available, but this was ridiculous! A simple 1k file on disc was now a 2k file in the 'M:' drive. A 'phone call to the shop elicited a baffled silence, but a request to let them know if I found out why the files had grown. I have, and I did. Apparently it has something to do with the allocation of disc space, which in the expanded 'M:' drive is done in multiples of 2k and not 1k as on disc. I'm told that some hard discs allocate space in units of 8k!

more like ten thousand – there were at least five drafts) a manuscript emerged from the printer which seemed readable. Envelope – postbox – wait – telephone rings – "yes, we'll publish" – hooray! Five articles and four acceptances later the 8256 has paid for itself and the overdraft has gone.

Mind your own business

Whilst all this was going on my wife started a small business of her own which required a cash and stock book to be kept, and maintenance of an ever changing list of clients. Whilst an accounts package and a database program might have seemed appropriate, our limited budget suggested SuperCalc 2. The limited budget won, and SuperCalc was purchased – a decision we have not regretted as it manages our simple accounts and record keeping in a straightforward and efficient way.

Whilst on the subject of SuperCalc, we also had the problem of not being able to set high quality on the printer or change the type size when printing a spread sheet. Many silly suggestions, and some which don't work at all, have been published to remedy this, but the proper way is to use the SuperCalc installation program to change the initialisation string sent to the printer. If mucking about with SuperCalc like this worries you, then you can practice on the SC2.COM file in the 'M:' drive.

Do a `PIP M:=A:SC2.COM` then put the other side of the SuperCalc disc in the drive. At the A> prompt type `INSTALL`. Then when asked for the file to install type `M:SC2` now you can muck up the installation to your heart's content without doing any permanent damage. Then, when it's OK just copy the changed file back to your working disc – but don't do this with the distribution disc!

What actually needs to be done when the menu of installation options appears, is to select 'Z' – 'modify terminal or printer settings' then select '8' – 'printer initialization string'. Unless you are conversant with the printer operation and its control codes, it is best simply to enter zeros for each number pair shown on the screen. Now when SuperCalc is used, the quality of printing and the type size can be selected by entering the codes from the SuperCalc Setup screen. The codes needed are shown on page 131 (Appendix II.6) of the CP/M section in the PCW manual.

Jumbo Jetsam

Now armed with NewWord and SuperCalc, both in regular use, it was time to let the 8256 deal with another perennial problem – an appalling memory. Birthdays, anniversaries, appointments, all were liable to be forgotten. A diary was not the answer – I kept forgetting to look in it! What was needed was a program which would automatically list events for the next seven days every time the computer was switched on. Not being able to find such a program commercially it became evident that it would have to be a home brewed item. Mallard BASIC and the indexed file handling of Jetsam provided the answer, and DIARY.BAS (a 12k BASIC program) was born.

Now each time the PCW is started, DIARY.BAS looks on the disc for any entries listed under the current day and the next six days. These are printed to the screen and demand a reading before anything further takes place. The diary can be added to, past entries deleted, and a twenty eight day diary sent to the printer. DIARY.BAS has proved invaluable and a complete remedy for forgotten appointments.

The basic system now comprises NewWord, SuperCalc, BASIC and a number of useful .COM files which are all on a two-sided system disc, along with the diary program. All program files are automatically copied into the expanded 'M:' drive on booting the system. The 'M:' drive is then used as a sort of small 'Hard Disc' and all programs are run from the NewWord main menu using the 'run a program' option, which allows return from any program back to NewWord. Some of the more often used programs like a full directory listing, can be run by simply pressing one of the number keys with the [EXTRA] key, the correct command having been assigned to the key with the SETKEYS utility.

The happy ending

My first computer was a Sinclair ZX80, since then I have had other Sinclair computers, something called an ORIC (most people would like to forget them), and Commodore machines. But none of them proved to be actually 'useful' – great fun, but useful? No. The PCW has broken that mould, it has opened up a new hobby – writing (and in this area alone it has paid for itself), it has brought a freedom from the embarrassment of poor spelling, it helps run a small business, and performs a service which only one secretary ever managed properly in the past – reminding me of all my appointments.

If this tale sounds serious and not much fun, then that's probably because I haven't mentioned my alter ego and namesake, Ford Prefect, last seen hot footing it down to the pub having returned a towel my mate Arthur Dent lent him. Now he had some sage advice for PCW owners – what ever happens DON'T PANIC! EXIT

Public Domain

Spooler and Scrivener are both 'public domain' programs, meaning that their authors have asked that they be distributed free of charge to anybody who wants them. Sounds good, but this can mean you get sketchy documentation and no support.

To get hold of Spooler or Scrivener, try sending an SAE for details to PD Software at Winscombe House, Beacon Road, Crowborough, East Sussex TN6 1UL. Although the programs are free, you will have to pay for a disc and a copying charge.

Are you a case?

Has your PCW revolutionised your life? Traumatised it? 'Case in Point' is a regular feature of 8000 Plus, and we are always looking for readers with interesting experiences to relate. If you use your PCW for something more than just running LocoScript, why not share your thoughts with a waiting world?

Try to keep things light but specific, with a fair smattering of hard facts about the packages you use. If you've had a bad time with some software, don't be afraid to sound off – you could be saving other readers weeks of agony.

We are looking for articles of not more than 2000 words, for which we will pay our usual generous rates. Write to *Case in Point, 8000 Plus, The Old Barn, Somerton, Somerset TA11 7PY*

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At a recent exhibition we met several unhappy spreadsheet users. They had visited their local Amstrad dealer and requested a copy of ScratchPad Plus. Whereupon they were told that "one spreadsheet is much the same as another" and by coincidence, the one the dealer happened to have in stock would be "just what they required".

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WIN A PRINTER!

8000 PLUS and **Compumart**, Britain's leading supplier of 3" discs, offer you the chance to win a superb daisywheel printer to go with your PCW word processing system.

The PCW standard printer is all very well, but is it *really* what you want to use when writing back to the Queen graciously accepting your knighthood (or damehood)? A daisywheel printer gives you typewriter quality printing for a real touch of class in your word processing – just the thing for impressing publishers and bank managers alike.

M	L	N	R	Y	R	Y	Y	H	E	O	V
F	O	E	T	A	P	T	T	R	L	S	N
L	Y	I	L	G	I	I	Z	L	E	S	O
O	R	C	O	K	X	Y	M	F	E	W	A
P	H	M	C	M	I	E	A	A	H	T	N
P	I	S	O	A	R	L	I	C	W	W	A
Y	I	T	S	N	T	P	L	S	Y	E	A
D	W	E	C	A	A	I	M	A	S	R	L
I	S	T	R	B	M	H	E	E	I	D	E
S	E	A	I	N	T	E	R	F	A	C	E
C	B	Z	P	S	O	A	G	O	D	G	G
G	G	Y	T	O	D	W	E	B	E	R	O

```
Normal draft mode text is fairly
fast, but comes out looking like
this

Even in 'high quality', the text
doesn't look quite right

But with a daisywheel printer, text looks
like real typewriter script
```

WHAT YOU HAVE TO DO

Above is a word square with 144 characters, some printed with the ordinary Amstrad PCW printer, and some printed with a daisywheel printer.

The characters printed with the daisywheel all form words. Reading horizontally, diagonally or vertically, in any direction, you will find six words which are particularly relevant to word processing and printing on a PCW. In addition, a seventh word is in there somewhere with all but one of its characters in dot matrix print.

All you have to do is look carefully, spot these seven words, write them on a postcard or the back of a sealed envelope with your name and address and send it to *Printer Competition, 8000 Plus, The Old Barn, Somerton, Somerset TA11 7PY.*

FIRST PRIZE

A Juki 6100 daisywheel printer, as reviewed in this month's printer survey, complete with a PCW serial/parallel interface, all the necessary connecting leads and even a mains plug! In short, everything you need to get going straight away with high quality printing.

RUNNERS UP

20 Runners up will receive prizes of free blank CF-2 discs. All prizes courtesy of Compumart.

RULES

1 Entries must arrive no later than the 25th of February 1987 – the draw for the winners will be announced in the April issue of 8000 Plus.
2 The judges decision is final, and no correspondence will be entered into.

The Database Manager and Reporter.

You know that Caxton only publish superior software products. Cardbox is the world's best-selling simple electronic card index. BrainStorm is the world's first ideas processor. ScratchPad plus is the only enhanced Virtual Memory Spreadsheet available for your Amstrad. And Touch 'n' Go is the UK's most highly respected disk-based typing Tutor.

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The Condor 1 Commands – They couldn't be simpler!

Database Creation and Maintenance

DEFINE	Create, redefine or describe a database
DESTROY	Eliminate a database or file
FORMAT	Create or revise a form or HELP screen
REORG	Reorganize the structure of a database; add or delete items

Information Input and Update

APPEND	Attach records of one database to another
EMPTY	Eliminate all data in a database
ENTER	Insert new data into a database
POST	Update entries in one database with those from another
UPDATE	Change entries in a database meeting specified conditions

Information Processing and Report Writing

COMPARE	Compare entries in two databases for (not) matching conditions and create a RESULT database
COMPUTE	Compute entries in a database
LIST	Display database records in sequential order
PRINT	Print database records in sequential order
PRINTER	Printer output control and redirection
SELECT	Select database records meeting specified conditions, creating a RESULT database
SORT	Sort database records by entries
STAX	View or print statistics of entries
TABULATE	Summarize specified entries. Print or save the result
TITLE	Print report headings

Operation Aids

HELP	Assist operator in selecting procedures
INSTALL	Saves SET and PRINTER options
RESTART	Continue processing interrupted commands
RUN	Process and execute a command procedure with options for command modification

Interfaces

READ	Transfer records from an ASCII file to an existing database
WRITE	Transfer records from a database to an ASCII sequential file

Utilities

COPY	Copy a database or file
DATE	View or enter date
DIC	View entries in the data dictionary
DIR	View the list of files in the disk directory
LOGDISK	Log a new disk in the computer
RENAME	Change the name of a database or file
SAVE	Save a RESULT database
SET	Set operating parameters
SYSTEM	Exit from Condor 1 back to operating system
TERM	Defines the computer (not needed on Amstrad)

PIRATE'S TREASURE

Inveterate BASIC fan Barry Pickles finds a treasure trove of programming tips

IT'S BASIC!
£7.95 • Nabitchi Computing • 051-708-8775/0123

Once upon a time, computers were small, memory was expensive and a whole bunch of people were getting to grips with new technology – a lot of them courtesy of Clive Sinclair. In those heady days of the ZX80, many books were published solely of program listings, and generations of programers learnt their skill by reading and adapting these.

Now the idea has been revived by Nabitchi, who have issued a 'bumper bundle' of 20 programs for the PCW range. The title 'It's Basic!' has two meanings. Firstly, the obvious one that all the programs need to be run from Basic.

When you first use the disc, you run (from CP/M) a special program called 'ITSBASIC', which copies the necessary files from your system disc onto the distribution disc, so that a 'turnkey' disc is created. When you subsequently use the disc, you are presented with a menu of the programs available, and you select these by entering a number. When the individual programs finish, they return you to the main menu.

The programs are a mixed bag of utilities and amusements. On the first menu, you have, amongst others, two variations of the Mastermind game, a four horse race, a duck shoot game (imagine Space Invaders with only one invader!), a dice game, an anagram generator and a word count utility.

There is also an X-rated story generator revolving around Kenny Everett's Captain Kremmen and his assistant, Carla. Quite what Mary Whitehouse would make of it, I don't know, but the program carries a warning about it's content. (What? You want a sample? Absolutely not. This is a family magazine, after all.)

Worthy of mention are a utility to make your PCW play music – along with a couple of examples – and one which allows you to create your own characters or graphics (*real* Space Invaders at last!) and save them on disc.

The second menu includes an aphorism (look it up!) generator, a 'universal' language translator, an 'Etch-a-Sketch' type program (are we getting royalties for advertising these brand-names?), an on-screen pocket calculator simulation and a couple of jokes whose secret I am not about to reveal.

You also get an address-book type database handler and a companion program to allow you to generate printed address labels from the database. The other utilities allow you to display large-sized text on the screen and to directly examine and edit the contents of memory.

More than just a program

A mixed bag, as I say, but this brings me to the second point about the disc's title. Neither the disc nor the BASICIistings are copy protected in any way. You may freely examine the listings and see how all the clever bits were done.

Here are the secrets of writing to the screen, altering the character set, scanning the keyboard, making sounds and a lot more. Of course, you are expected to do some of the hard work yourself, but it's all here, if you care to examine and learn from Nabitchi's programmers.

You may also take the listings to expand and adapt them as you will – or use the concepts to create an entirely new program. A good many 'professional' programmers began by examining other people's work and adapting the ideas to make new creations.

Of course, you may not want to do any of this. You might just want to have some fun. If so, there is plenty here to amuse you and, at 40p a program, it has to be good value!

One final word for people who have paid for the disc of public-domain games programs sold by Advantage and have been disappointed: the Nabitchi programs are a cut above. They were all written specifically for the PCW and are designed not only to amuse, but also to help those who would like to get more from programming in BASIC, but don't know where to begin.

This is very much a 'toe in the water' project by Nabitchi. If it's what the users want, then they plan further volumes. All I will say is that you would be hard pressed to find a better offer! EXIT

CHRISTMAS TURNKEY

When you switch on your PCW, you normally put in either side 1 or side 2 of the system discs supplied by Amstrad. This 'boots' the machine and puts you either into LocoScript or CP/M.

With CP/M, it also looks for a file called 'PROFILE.SUB' and, if it finds it, treats the text contained within that file as if it were commands that you had typed at the keyboard.

If you make a disc which contains the 'boot' program, a file called PROFILE.SUB and all the programs which are called within that file, including the specific application that you want to run, then this is called a 'turnkey' disc.

The name derives from the days when, to start up a computer, you literally turned a key in a locking switch. What it means is that, with such a disc, you may run the application by simply switching on the machine and inserting the 'turnkey' disc. This makes it much easier for an operator with no specific to start up a program.

PLUSES
- ⊞ **A range of quite useful programs at rock bottom prices**
- ⊞ **Invaluable tips for budding programmers**
- ⊞ **All programs are copiable (and you are encouraged to!)**
- ⊞ **Costs little more than a blank disc**

MINUSES
- ⊟ **If you can't program, you may soon outgrow the usefulness of the disc**
- ⊟ **No tutorial guidance in the documentation**

RANGE OF FEATURES ■■■□□ **PERFORMANCE** ■■□□□
EASE OF USE ■■■□□ **DOCUMENTATION** ■□□□□

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Punch WEEKLY 65p
March 28 1984

> ...What you all need is BrainStorm, a remarkably intelligent notion from Caxton Software...The principle behind the program is so obvious that one wonders why it hasn't been thought of before. It is this: when you start thinking about something which is eventually going to be structured and ordered, you initially think in random jumps. Unconnected ideas flash into the brain...
>
> Then begins the long slow laborious business of putting them together in some sort of order. Does this bit go with that bit or the other? Have I already made that point? Do I need to remind them of this when I mention that a second time? How much longer can I walk around scratching my bum and smoking before someone asks why haven't I finished?...
>
> BrainStorm answers all these questions with great simplicity. Essentially it is a *list organiser.* You start with a more-or-less blank screen. You can either plan your main headings now, or start entering jottings at random. Most people go for a half-way house; perhaps you can put down "Beginning, Middle, End", as your three headings. Then start putting down your ideas. Pretty soon BrainStorm will follow your thoughts and start making interconnections on the basis of word-matches...
>
> Using it while writing this review has been a salutary experience. Couldn't manage being without it now, whether for organising production schedules for these pages, planning our longer articles elsewhere in the magazine, or writing speeches...
>
> Hitch-hiker wizard *Douglas Adams* is said to be delighted with his...
>
> Takes about 30 minutes to learn to use it...

"There is no other way of doing the job nor any other program which does it"

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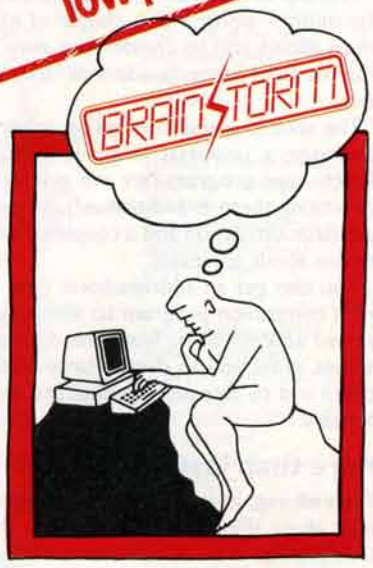

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The Ideas Processor

MAKING CHOICES

John Hughes tells his PCW where to go

Although this is only the third article in the series, we have already covered a substantial amount of ground, and inevitably some important points have been skimmed over. We shall now take a quick look at these to see how we can make our work a little tidier and more user-friendly.

Start by loading in the Fahrenheit to Centigrade conversion program which was introduced last time. Although it does what it is meant to, there is still quite a lot that could be done to improve it.

Clearing the screen

The first improvement will be to clear the screen before any prompts or instructions appear. In many versions of BASIC this is very simple – you only need to use a command something like 'CLS' – but, as you may have found out already, this command does not exist in Mallard BASIC.

To clear the screen, put the following line, appropriately numbered, towards the beginning of all your BASIC programs:

```
CLS$=CHR$(27)+"E"+CHR$(27)+"H"
```

Then at whatever point you want the screen to be cleared, put a line reading

```
PRINT CLS$
```

You don't need to understand how this works; just regard it as a rather cumbersome way of doing what other versions of BASIC do with 'CLS'. Remember that it won't work unless the first line is present in the program before the line reading 'PRINT CLS$'.

Tidying up the output

The second change in our program places a semicolon after the final inverted commas in both the lines which PRINT a message on the screen. The effect of this is to force the next printed output to appear immediately after the message and on the same line. More details are given in the box.

Incidentally, when you ran the original Fahrenheit to Centigrade conversion program you may have noticed that the numbers comprising the answers were set in from the left margin by a space equivalent to one character. This is because BASIC always prints a space in front of a positive number and a '-' in front of a negative number; an automatic space is also printed after every number.

Using REMinders

The third improvement to the program is one that doesn't affect the way it appears on the screen, and so you may not see the point of it immediately. It involves a new BASIC command, 'REM'. This is short for REMark or REMinder, and it allows programmers to insert comments into their programs to remind themselves later of what a program does, when it was written, and other similar information.

The only rules to remember about REM statements are first, that everything which appears on the same line and to the right of the word REM is ignored by BASIC; and second, that wise programmers use REMs very freely.

```
5 REM Program to convert temperatures from Fahrenheit to Centigrade
6 REM 8000 Plus
7 CLS$=CHR$(27)+"E"+CHR$(27)+"H"
8 PRINT CLS$
10 PRINT "Type in a temperature in Fahrenheit,"
20 PRINT "then press Return or Enter";
30 INPUT X
40 Y=(X-32)*5/9
50 PRINT
60 PRINT
70 PRINT "The temperature in Centigrade is";
80 PRINT Y
90 END
```

Going round again

Although last month's program – especially in its modified form – does its job quite adequately, it is still something of a nuisance to use if you want to convert a whole lot of different temperatures from Fahrenheit to Centigrade, as you will have to type RUN each time.

There is a simple BASIC command which will help you to avoid this. It takes the form:

```
GOTO (line number)
```

that is, the command is followed by the number of the line to which you want the program to go.

This short program may show how it works:

```
10 REM Program Endless
20 PRINT "See if you can stop me!"
30 GOTO 20
```

Before you type it in, SAVE the latest version of the temperature conversion program, then clear it out of the computer's memory by typing NEW and pressing Return

You must always use NEW when you want to scrap an old BASIC program and type in a new one; otherwise, bits of the old program will stay in the computer's memory and may cause problems. You don't need to use NEW if you LOAD or RUN a program off a disc.

When you RUN the new program, you will find that the message in Line 20 will be printed repeatedly on the screen (although once the printing reaches the bottom of the screen it will be hard to see that it is in fact still continuing).

```
10 REM Program to convert temperatures from Fahrenheit to Centigrade
20 REM 8000 Plus
30 PRINT "Type in a temperature in Fahrenheit,"
40 PRINT "then press Return or Enter";
50 INPUT X
60 Y=(X-32)*5/9
70 PRINT
80 PRINT
90 PRINT "The temperature in Centigrade is";
100 PRINT Y
110 GOTO 10
```

This is because Line 30 'transfers control' back to Line 20, so that the program will never stop. It is running, in fact, in an endless 'loop'.

At first, you might think that the only way to break out of this loop is to turn the computer off, or at least to reset it – both of which would mean that you would lose your program – but there is a less drastic way: just hold down the [ALT] key and tap the 'C'. The program will immediately stop, and a 'Break' message will be displayed telling you which line was being executed when you stopped the program.

Don't let the word 'Break' bother you; it doesn't mean that you have actually broken the program, and if you LIST it or reRUN it, you will find that it is unaffected.

You can type either GOTO or GO TO, as you prefer; it makes no difference to the operation of the program.

Your first bug

You might think that it would be easy enough to modify the temperature conversion program to go round for ►

ever by simply putting a GOTO 10 statement in place of END. However, if you reload the program and try it, you will find that it isn't quite as simple as that.

The reason is that when the program is run, it will blank the screen, ask for a temperature in Fahrenheit, convert it into Centigrade, print the answer on the screen and then immediately go back and blank the screen out again before you have had a chance to read the answer!

Computing is so full of these little traps for the unwary that there is a special name for them – they are called 'bugs'. There is a story, the truth of which is not guaranteed, that Grace Hopper, a well-known early computer programmer, found one day that the computer she was using was not behaving reliably; on investigation, she found that a grasshopper had got itself wedged in the circuitry, thus becoming the original, and literal, computer bug.

There are many ways round this particular glitch, but probably the easiest will be to take out Lines 7 and 8. To remove any line, just type the line number and then press Return, and it will be deleted at once.

Pretty Printing

The following symbols can be used in a PRINT statement to control the where the next item to be printed will appear:

; Causes the next item to be printed on the same line and as close as possible to whatever precedes it.

, Causes the next item to be printed at the beginning of the next 'print zone'. Each 'print zone' is normally 15 characters wide.

An awkward error to spot

It's important that the GOTO command doesn't try to send control of the program to a line which doesn't exist. For instance, if you try 'GOTO 23' in a program which has no Line 23, you will be told that there is a 'Line does not exist' error in the line which has the GOTO in it.

The reason for this is that BASIC always reports the number of the line in which it became aware of an error, and in some cases – such as the present one – this is less than helpful.

Because such errors can be extremely difficult to spot, always be careful when using GOTO that the line which is the 'object' of the command really exists; and when deleting a line, be certain that there is no GOTO anywhere else in the program referencing that line.

Comparatively Speaking

The following symbols can be used after IF, to allow you to take different actions depending on the how the test turns out:

> Greater than
< Less than
= Equal to
<> Not equal to
>= Equal to or greater than
=< Equal to or less than

```
10 REM Program to input numbers and find their total
20 REM Input is terminated by a zero input
30 REM 8000 Plus
40 CLS$=CHR$(27)+"E"+CHR$(27)+"H"
50 PRINT CLS$
60 RTOT=0
70 PRINT "Input a number please, or zero to terminate";
80 INPUT NUMBER
90 RTOT=RTOT+NUMBER
100 IF NUMBER<>0 THEN GOTO 70
110 PRINT
120 PRINT
130 PRINT "The total of all the numbers is";
140 PRINT RTOT
150 END
```

Tidying the program again

By now, after all our alterations, the original program is looking rather scrappy, with the line numbers at quite irregular intervals. This really makes no difference at all to the running of the program, but if we wanted to go on adding lines, sooner or later we might find that we wanted to insert a new line where there was no room left for it.

Fortunately, you can correct this by just typing `RENUM` and pressing [RETURN]. If you then LIST your program, you will find that all the lines have been renumbered in increments of 10, and that even the line number in the GOTO line has been altered to match.

Conditional jumps

The GOTO command is an 'unconditional jump' – regardless of the circumstances, it will always transfer control to some other point in the program.

There are other times when this is not really what we want. For example, having to interrupt our temperature conversion program by pressing [ALT]+C is a little reminiscent of stopping a car's engine by deliberately stalling it.

Fortunately BASIC offers another, and much more powerful, command. This takes the form:

```
IF (condition) THEN (action)
```

To see how it works, clear out the temperature conversion program with NEW and try the following:

```
10 REM Testing the IF command
20 PRINT "Input a number"
30 INPUT X
40 PRINT "You typed";
50 PRINT X
60 IF X>0 THEN GOTO 20
70 END
```

This program will input a number, print it on the screen, and then check whether it is greater than zero. If it is greater than zero, then control passes back to Line 20, and the program will ask for another number; if the number is not greater than zero, then the program will end.

Notice the symbol '>', meaning 'Greater than'. BASIC recognises a range of these symbols, as you will see from the box.

A new program

Rather than going back to change our temperature conversion program yet again, we shall have a new one using everything we have learned. The purpose of it is to ask for a series of numbers, adding each one into a running total. As soon as a zero is entered, the program prints the running total and then ends.

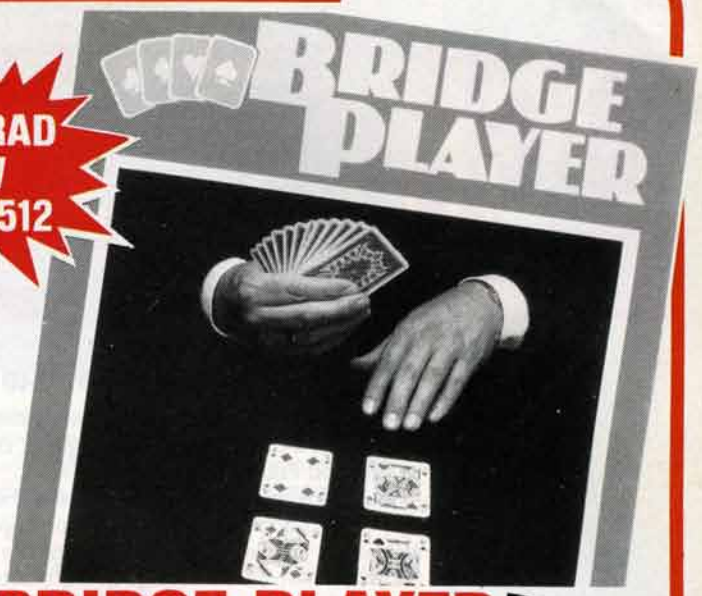
A number which is used in this way is called a 'terminator' or a 'rogue value'; it only exists in order to tell the computer to take a particular course of action – in this case, to stop asking for more numbers and to print the total.

Notice especially the way in which the running total is worked out in Line 90: the variable RTOT is set equal to zero at the beginning of the program, and every time a new number is input, it is added to the value of RTOT. This is the usual way in which running totals and the like are calculated.

Another difference is that we are no longer using very simple variable names, like 'X' and 'A', but ordinary English words like 'NUMBER'. As far as the computer is concerned, it makes little difference which you use, provided only that you use acceptable variable names, but using variable names which have real meaning to humans makes it much easier for other people, or even yourself at a later date, to understand what your program is doing.

cp software

AMSTRAD PCW 8256/8512



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LIGHT RELIEF

Tony Flanagan sets off in pursuit of trivia, dreams and aliens

SILICON DREAMS
£19.95 • RAINBIRD • 01 240 8838

With a trilogy of enjoyable adventure games, a humorous novella and a comprehensive play-guide, this package has to be good value for money.

In the first game, Snowball, you take the part of secret agent Kim Kimberley. Awaking from suspended animation, you find yourself on board the spaceship Snowball 9 which is heading for big trouble. A hijacker has occupied the central control room and is threatening to warm things up a little by sending the spaceship hurtling into the sun. It's your task to prevent this happening.

To do this, you have to make your way through a maze of corridors and lifts to the main control room. This is not quite as straightforward as it would seem. The spaceship's machine intelligence, the 'Nightingales', are on patrol and determined to get their steely tentacles into your cranium.

The second game, Return to Eden, continues the story. Having saved Snowball Nine from catastrophe, Kim Kimberley is quite mistakenly found guilty of trying to sabotage the ship and is sentenced to death. Having escaped in a stratoglider, you crash-land on Eden. From there you have to make your way to Enoch, a city peopled by robots (a bit like Birmingham perhaps?), and prevent Snowball 9 – considered an alien craft by the robots – from being destroyed.

The final game, Worm in Paradise, is strange to say the least enjoyable. The object is to obtain as much money as you can and then become a member of the governing party. Initially, you find yourself in the Garden of Eden. As people do in places like that, you take a little nibble or two of a rather juicy apple. Before you know it, a little worm has crawled out and you're running after it. From then on you enter a bizarre world made up of casinos, zoos, pet-shops and temples just to name a few of the locations. Along the way, you must watch out for fuzbots – a pseudo policeforce – who can fine you for possessing illegal objects.

All three games contain, what the Level 9 team have called the 'OOPS' facility, which means that if you make a terminal mistake, you can take it back and find yourself miraculously restored to life.

The three games, which can be played in sequence or separately, are never dull. Text descriptions are detailed and the graphics, though by no means stunning, help create atmosphere. Lots of hours of good entertainment here!

PLUSES
- ⊞ Text is detailed and well-written
- ⊞ Coherent and believable scenarios
- ⊞ Very user friendly, particularly the 'help' facility

MINUSES
- ⊟ Nothing for bored reviewers to criticise

ATMOSPHERE ■■■■■
INTERACTION ■■■■□
CHALLENGE ■■■■□
VALUE VERDICT ■■■■□

TAU CETI
£19.95 • CRL • 01-533 2918

This game has got everything: neat graphics action, lots of atmosphere and a great deal to explore.

Set in the twenty-second century, Tau Ceti has all the typical sci-fi ingredients – alien robots, space colonies and distant planets. One such planet is Tau Ceti III, now a deserted colony since an outbreak of terminal lergy a century or so previously. Now an antidote has been found and the intention is to recolonise.

Unfortunately, the planet is under the control of some rather recalcitrant robots. To make matters worse, Tau Ceti III's defence system cannot be penetrated without destroying the planet's buildings. Consequently, the authorities have decided to send in a skimmer pilot to shut down the main reactor, situated in the capital city of Centralis.

As the pilot, it's your task to collect the various rods needed to shut the reactor down. These are concealed within the many reactor substations scattered about Tau Ceti III's various cities. Your task is made more difficult by robot spacecraft which patrol these cities and fire lethal missiles. Fortunately, your skimmer is equipped with its own guided missiles as well as laser fire and a defensive shield.

In between fire, therefore, you must manoeuvre your skimmer to dock with the reactor substations where, once inside, you'll find the rods you need. From time to time you must also dock with civilian and military supply centres where you can re-equip with ammunition and fuel, and repair any damage the skimmer has sustained.

Travel between cities is not as straightforward as you might expect. First, the city's jump-pad must be located and then you must manoeuvre the ship so that it is hovering over it. Then it's simply a matter of pressing the appropriate key and you find yourself in the next city with a new set of robots to avoid.

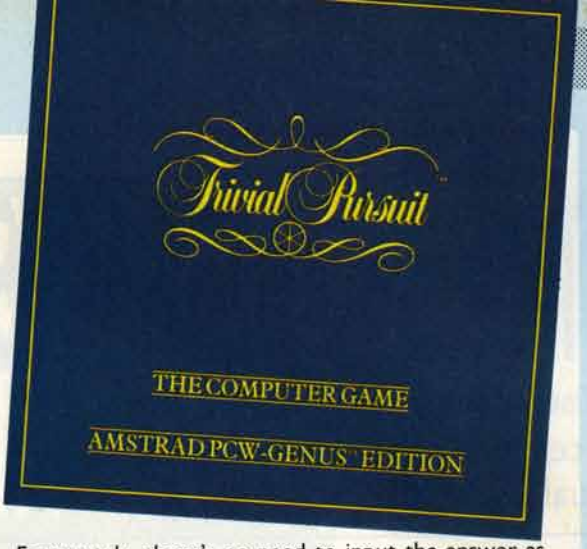
This game is nicely presented, easy to follow and instantly playable. I found it compulsive!

PLUSES
- ⊞ Lots to do and explore
- ⊞ Believable scenarios
- ⊞ Demanding but not impossible
- ⊞ Neat graphics

MINUSES
- ⊟ You're in for some sleepless nights

GRAPHICS ■■■■□
ADDICTIVENESS ■■■■■
LASTING APPEAL ■■■■■
VALUE VERDICT ■■■■■

TRIVIAL PURSUIT
£19.95 • Domark • 01-947 5624



Question: 'Why should presumably intelligent people want to spend their leisure time answering facile questions?' Answer: 'Because Trivial Pursuit is less of a game than a status symbol'.

Still, those Yuppies amongst you who honestly like the board game should like the PCW version too. Not only does it faithfully follow the original, but the programmers have added number of features to help the game's transition to disk, including music, a score chart and an animated question master called 'TP'.

The main screen displays the board. Different coloured squares are indicated by a variety of patterns. In place of the dice, TP throws a dart at one of the numbers displayed on the board. Move options are then highlighted by flashing squares and movement is then made by pressing the appropriate cursor key.

Questions are asked in the cosiness of TP's lounge. Such surroundings, though stylishly executed, are not just cosmetic. The clock standing in the corner of the room shows how long the game has been in progress whilst a burning candle to the right indicates how much time is left to answer the question.

TP's questions take three main forms: text, graphic and music. The first follow the type found in the board game – questions such as 'Where did Peter Pan take Wendy, Jane and Michael?'or 'Which of Christopher Robin's friends never gets lost?'. In the second, simple motifs and diagrams are displayed, with a colour key at the bottom of the screen. Lastly, you'll find your 8000 plus tripping out a merry tune followed by a music related question.

Fortunately, there's no need to input the answer as this is given automatically when your time is up. TP asks whether you were right or wrong and, depending on your answer, offers words of praise or disapproval...or even gentle accusations of cheating! (As if anyone would!!!)

The graphics in this game are of a very high standard and the music questions break new ground on a computer that wasn't really designed for such things. It's my feeling, however, that people would much prefer to play the board game than huddle round a computer.

PLUSES
- ⊞ Instantly playable
- ⊞ Stylish graphics and nifty animation
- ⊞ Recognisable jingles
- ⊞ Can load in new questions

MINUSES
- ⊟ Same questions come up too often for comfort

GRAPHICS	■■■■■	LASTING APPEAL	■■□□□
ADDICTIVENESS	■■■□□	VALUE VERDICT	■■■■□

STRIKE FORCE HARRIER
£19.95 • Mirrorsoft • 01-377 4645

Mirrorsoft enlisted the help of British Aerospace in the design of this game so it's not surprising that the play is quite realistic.

As with most games of this kind, however, you have to work through the accompanying flight manual quite carefully before you can get much joy, unless, of course, you're a flight simulator buff already. Luckily, the manual is well-written so that – providing you spend a bit of time ploughing through it – you end up knowing roughly what you're supposed to be doing.

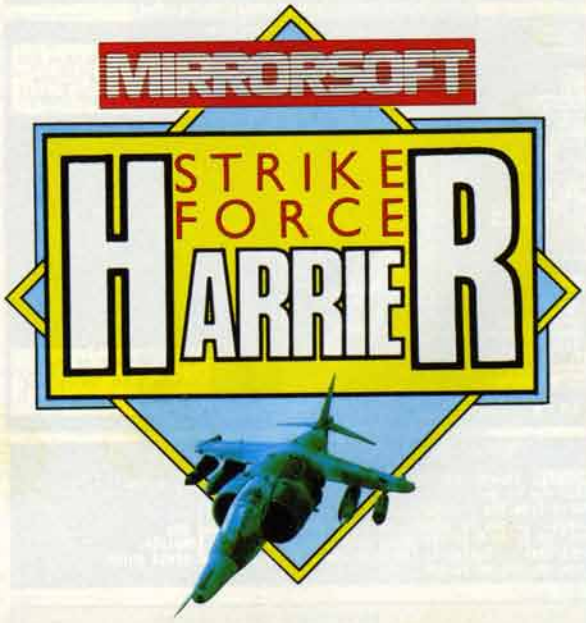
The aim of the game is to eradicate enemy HQ 250 miles away. To achieve this you have to contend with an array of enemy tanks which surround your ground sites. Once these tanks have been destroyed you have to set up new operational areas which, in turn will, be threatened by more enemy tanks and which, again, you have to destroy. There are 512 sites in all but fortunately, not all of them are needed to complete the mission.

The main screen displays the view from your cockpit and a detailed instrument panel. Amongst the usual array of gadgetry, there's a 'Friend or Foe Tracking Radar' (FOFTRAC) scanner. All this is necessary as there is a gamut of less than friendly forces out to get you: Surface to Air Missiles (SAM), Anti-Aircraft Artillery (AAA) and Ground Fire from troops, not to mention enemy aircraft.

Like the real Harrier, yours can take off and land vertically. For the more experienced pilot, the manual shows specific manoeuvres to shake off or attack enemy aircraft. Clearly, to play the game to its full potential the would-be pilot must learn to handle the plane properly. Careful strategies are also required if the mission is to be successful.

Strike Force Harrier requires a lot of time and attention. Providing you're prepared to give it that, the game game should guarantee hours of fun ... and frustration. Good luck!

EXIT



PLUSES
- ⊞ Neat graphics
- ⊞ Requires reflex responses as well as brain power
- ⊞ Realistic simulation

MINUSES
- ⊟ Difficult to get into initially
- ⊟ Requires lots of practice to achieve its potential

GRAPHICS	■■■■□	LASTING APPEAL	■■■■■
ADDICTIVENESS	■■■□□	VALUE VERDICT	■■■■□

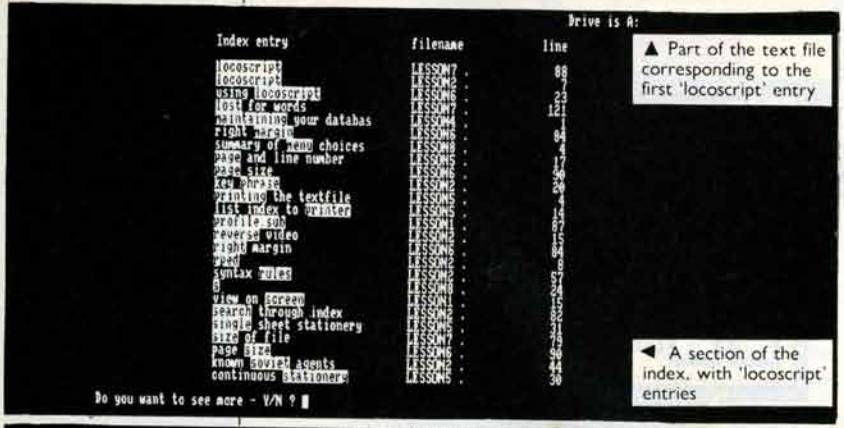
EXTRACT FROM ABSTRACTS

Without the distraction of structured files, FT=DB turns text into database files. Can Free Text really equal DataBase?

FT=DB
£24.95 • Encyclasoft • 0270 811868

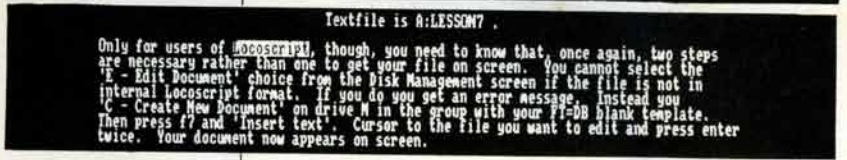
Anyone who has used a computerised encyclopaedia or periodical abstract, or who has seen the BBC's Doomsday Project video discs in action, will know how easy it is to scan large text files by using a series of 'keywords'. By typing in several words which pinpoint the subject in which you're interested, the computer can start digging through the mass of information in its files.

◄ The main menu, starting a search for 'locoscript'



▲ Part of the text file corresponding to the first 'locoscript' entry

◄ A section of the index, with 'locoscript' entries



PLUSES

- ⊞ Easy to use
- ⊞ Versatile retrieval over several text files
- ⊞ Inexpensive

MINUSES

- ⊟ Link between index and text should be automated
- ⊟ No editing facilities

RANGE OF FEATURES ■■■□□ **PERFORMANCE** ■■■□□
EASE OF USE ■■■■□ **DOCUMENTATION** ■■□□□

***8000 PLUS* VALUE VERDICT** ■■■□□

Encyclasoft have taken this idea and shrunk it down to size for the PCW. FT=DB lets you take any word processed file and index it with keywords. Once this is done you can search through the file by offering any keywords in the index, and the program will show you an associated phrase and a file and line reference. You can then load the file and page through to the text you need.

Text on free text

FT=DB is supplied as a 3" disc with a fold out disc insert. There is no paper documentation as such, apart from instructions on loading the disc. Instead of a paper manual, FT=DB relies on a series of tutorial files included

Although FT=DB is simple to use, it would still very useful to have a reference card with the main controls listed on it. This could be incorporated into the disc insert at little extra cost.

Writing your database

The data files which FT=DB uses are simple ASCII text files. You prepare them with any word processor of your choice, and can use the same word processor to edit them at any time. FT=DB never alters the contents of your text file. It is purely a read only program. This means, of course, that there are no editing facilities within the program, and this can be annoying at times, as you have to switch from one application to the other each time you update your text.

As you type in your text file, you mark key phrases and keywords with ordinary ASCII characters, which have no effect on the text file, but indicate to FT=DB which words and phrases are important.

Once you've marked up your file, load FT=DB and ask the program to index the file. It will then go through the text and compile its own index. When this has been done, you can use the index to search the text with the keywords. If you revise the text at all, you'll need to re-index in order to keep all the references up to date. FT=DB provides line numbers for each line of text and uses these when displaying the index.

Partial recall

When you search for a particular keyword, you can carry across several textfiles at once. They must all have been added to the index before they're searched, but the only other restriction is disc space.

Each matching entry is listed in the screen, with its filename and the line number within that file. It's shown within the phrase you marked when you went through the textfile, to give you an idea of the context of the piece. The search then continues alphabetically and displays the next 24 entries in the index. You can page forward through the index from there.

Once you've looked up the entry in the index, you must return to the main menu and enter 'view' mode. You re-enter the filename and the line number, and the text file is displayed starting at that line. Again, you can page forward through the text from there.

It seems odd that the essential link between the index and the text is broken by having to jot down or remember the filename and line number. It would be much easier to be able to select the reference from the index and have FT=DB find and display it. It would also be handy to be able to switch back to that point in the index if it proved to be the wrong reference. As it is you have to go back to the main menu and start a fresh search.

Verdict

FT=DB is a well-designed, fast retrieval system. It could do with a better link between index and text, and simple editing facilities would be handy, but is is still very usable, and is ideal for a number of text database applications. At the price, it's good value.

C.E. T.I.

LANGFORD'S PRINTOUT

A page foolishly handed over to SF author DAVID LANGFORD who just happens to own an AMSTRAD

As every red-blooded SF fan knows, CETI stands for Contact With Extra-terrestrial Intelligence. It's a good phrase for the awesome concept of using your PCW to signal across the illimitable void of incompatibility – to communicate via feeble pulses of electrons with such hostile entities as Intergalactic Bug-eyed Monsters (another acronym explained) – to boldly go....

Sorry, the SF writer in me gets a bit uncontrollable at this phase of the moon.

As threatened, I've been looking into ways of squirting text between the PCW and other computers. Suppose you've written a book in LocoScript and your publisher asks for ASCII-file format on a 5.25" disk? Or suppose you can (like me) save retyping stuff by transferring it directly from 3.5" to 3" disks? Assuming you have or can borrow a computer with the "alien" disk type, this is what you need:

First, your PCW requires the add-on serial interface which lets it talk to the outer world. Amstrad's own isn't too expensive, and can be installed in seconds without voiding your guarantee or hauling out the arc-welding gear: it fits on that wafer of circuit board sticking out of the back of the PCW. Two screws hold it there. Technical requirements: one Phillips screwdriver and the ability to rotate same in a clockwise direction.

The interface box announces its presence when you load CP/M, and doesn't otherwise get in your way.

Secondly, you must physically connect your computer to whatever else is waiting out there. These cables are quite pricey, and I wanted two (we'll come to that), so I decided to go stark mad, buy the bits, and solder up my own. This proved much easier than expected, enabling me to save vast sums of beer money. If you can face the thought of a soldering iron, here's the recipe.

Take a few metres of 3- or 4-core screened cable (only 3 cores will be used) and two of those arcane objects known to the Illuminati as "25-way D connectors". Consult your local electronics shop, or page 113 of the ubiquitous Maplin catalogue. The PCW end of your cable needs a socket-type ("female") connector; at the far end, IBM-compatibles like the PC1512 demand the identical connector, while other computers like Apricots may want the plug-type ("male") version. This is why I wanted two cables.

The actual wiring isn't too agonizing, because the pin numbers appear in tiny bas-relief on the connectors. Pin 2 at the PCW end should go via the cable to Pin 3 at the other end. Likewise, Pin 3 to Pin 2. The third cable wire links Pin 7 at each end. Finally, wire together pins 4, 5, 6 and 8 at the PCW end, and then do the same at the far end. "Crossing" the links between pins 2 and 3 produces a cable suitable for talking to other computers, rather then mere peripherals (printers, etc.).

After connecting this wondrous cable between the Amstrad add-on box and the "serial port" of the alien computer, there's the question of software to move stuff to and fro. No problem with the PCW itself: the famous MAIL232 program is lurking on your master discs, and can be commanded by loading CP/M, putting in the LocoScript disk, and typing MAIL232. Further details are in the leaflet that comes with the interface.

My first experiment was with an Apricot and its ASYNC communications program, which like MAIL232 was thrown in free. Nothing much seemed to happen in the first few trials, until I tried changing the "baud rate". This is a measure of how fast the information is moving down the wire, in bits per second. MAIL232's normal setting is a highish 9600 baud, moving text at 1200 characters per second (work it out: one character equals one byte equals eight bits)... perhaps my crummy little wire couldn't cope with the traffic, perhaps the Apricot and PCW just weren't quite compatible at that frequency. The problem vanished when I braked to 1200 baud, and text files started moving across with gratifying ease.

(Many computers don't actually transmit and receive at the "standard" baud rates advertised in the manuals. For example, at the PCW's alleged 7200-baud setting, Amstrads will talk to other Amstrads but rarely to different computers, since Alan Sugar's version of 7200 baud is somewhat idiosyncratic, at 7352.94....)

Even if the two computers talked the same language, I'd be nervous of moving program files between them: MAIL232 is a bog-standard communications program without fripperies like error checking, and sure enough I did lose odd characters from some transferred files. In text, such tiny errors merely get you mocked for leaving a "g" out of "mortgage". Similar gaps in programs are liable to crash the computer, write rude graffiti all over your disk directories, or initiate World War III.

Moreover, both programs and LocoScript files contain weird characters which simple-minded MAIL232 can't handle. You should use the "Make ASCII file" option in LocoScript, to get something which can be transmitted to distant galaxies.

Next it was time to try linking with a PC1512. This was harder, since Amstrad don't include any communications software with their IBM clone. A friend came to the rescue by bringing round his copy of Sagesoft's ever so upmarket program ChitChat: we shifted a couple of test files in each direction and everything seemed fine. For us cheapskates, though, I think public-domain "comms" programs are copiously available for the PC1512. Enquiries are under way. Our mighty radio telescopes are scanning the heavens. Beam me up, Scotty. EXIT

Pitfall of the month

"Your program," an admirer writes, "could not find a bass drum in a telephone box." Despite following instructions, this unfortunate user kept getting "Cannot find file" messages from software by Modesty Forbids. The problem was the natural human urge to include spaces in disk filenames, exactly as shown on the menu of perfidious LocoScript. Beware: a file may be called CHAPTER .1 by LocoScript and CHAPTER 1 in a CP/M directory, but most CP/M programs won't accept either alias, and insist on CHAPTER.1 with the dot and without the space.

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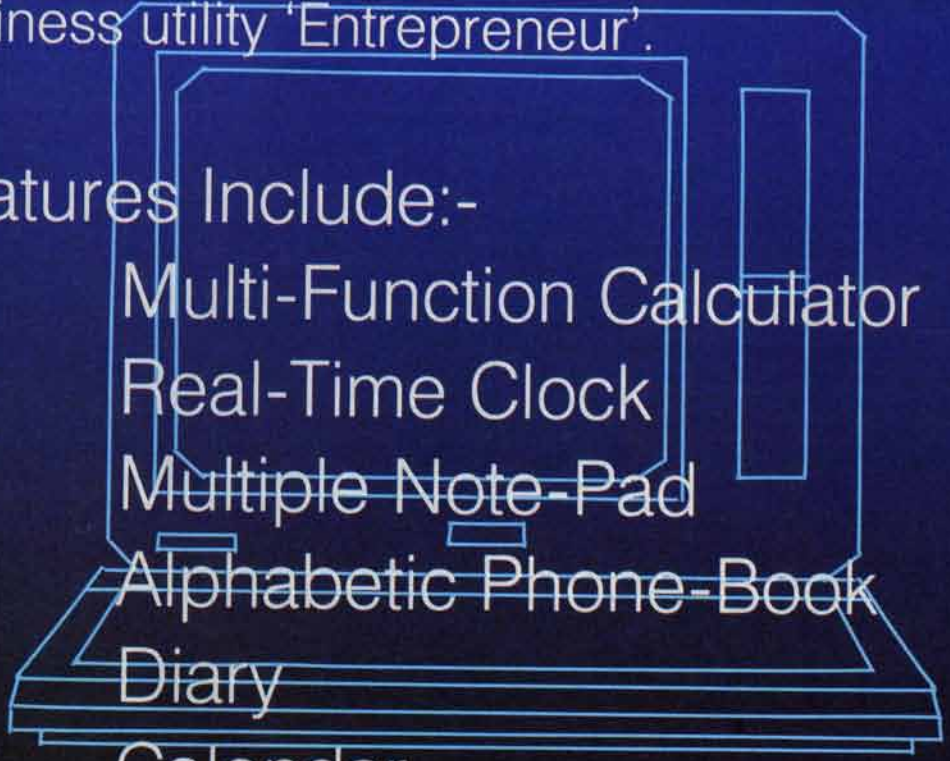

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PRIZE BOOKS

Bookworm Jeremy Spencer gnaws through this month's offerings

WORD PROCESSING AMSTRAD PCW8256 by Ron Hughes
£6.95 • Macmillan • 0256 29242

Foolishly I expected Mr Hughes' book to a useful reference to wordprocessing software available on the Amstrad – it is not. The author takes the view that the Amstrad is a dedicated wordprocessor, able to function as a computer, while a fairly healthy software industry seems to take an opposing view – that the Amstrad PCW is a competent computer which is sold with wordprocessing software thrown in.

The book is almost entirely dedicated to LocoScript, and no useful reference is made to any other wordprocessing software. In fact, one of the later chapters purports to enlighten the reader as to the operations of the printer and states that it has four purposes in life, three of which are described in terms of LocoScript, giving the impression that the printer only works with said software. The fourth function describes the printer's ability to make a screen dump. The fact that the Amstrad printer serves many thousands of users for printing out accounts, spreadsheets, graphics and any number of none LocoScript functions escapes the author.

Like so many books aimed at the Amstrad market, this one is aimed at the beginner. I am all for making the explanations simple and complex operations understandable, but Mr Hughes goes further by treating his readers as complete idiots. One whole page and three lines are dedicated to explaining how to open the plastic disc cases the discs are supplied in. Some of his advice is questionable – the author suggests that if you want to discover whether a disc is formatted or not, you should place it in a drive and type `DIR` if the computer comes back with a 'sector not found' error then the disc is not formatted, and should be. Reasonable advice if you only have a single drive – but decidedly bad if you use a 780k drive and happen to place the disc in the wrong way round.

This book is badly titled, even if you take into account the short and not very informative chapter at the back which just touches on a few of the alternative applications for the PCW – it is essentially a beginners' guide to LocoScript. Another one.

Word Processing Amstrad PCW8256
ISBN 0-333-42792-0
8000 PLUS VALUE VERDICT ■■□□□

STEP BY STEP GUIDE TO LOCOSCRIPT
£4.95 • Amsoft • 0277 230222

Most of the products turned out by Amsoft are pretty naff, but this book is a gem. For £4.95 the shaky beginner in LocoScriptese is taken by the hand, and very gently guided though the jungle of pop-down menus and option bars.

The book starts from the very beginning: page 5 deals with the contents of the box your machine was shipped in, which is strange really since most people buying this work would have already unpacked their Joyce. Perhaps this was going to be the LocoScript manual – pity it wasn't.

After being told, meticulously, how to unpack the computer, set it up, care for discs and copy them we get onto the serious business of using LocoScript.

Each operation is explained by reference to little key shaped squares, with words or letters within. For instance, if you are required to type 'shift up arrow' two boxes will be shown, one with 'SHIFT' and the other with an ' ↑ '. To signify that one key should be held down while the other is pressed (to use [ALT] and [EXTRA]), the two boxes are joined by lines. It is very easy to distinguish between sequences of keystrokes, and those which need to be used with [SHIFT] or [ALT] pressed.

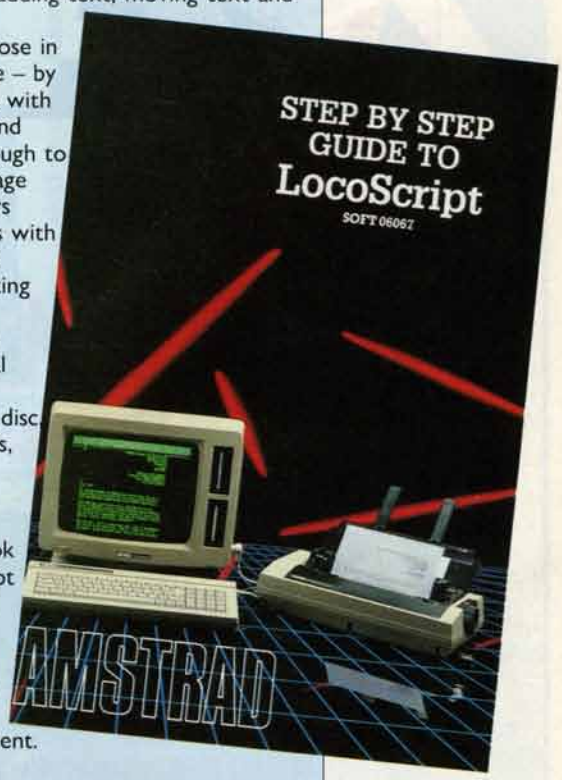
The key sequences given aren't arbitrary, either. The idea is that you follow every keystroke, step by step, and read the explanatory text to understand the operation you are performing. It's rather like having someone leaning over your shoulder explaining very move. Of course the impatient among you will probably stray, and that might explain why you had such a hard time at school.

The book is divided into five sections, the first two being dedicated to setting the system up and the mundane tasks of wordprocessing, like creating documents, deleting files, adding text, moving text and files and so on.

Part three caters for those in search of the perfect page – by covering everything to do with page design – from tabs and indenting all the way through to hyphens and spaces and page breaks. Section four covers printing of final documents with headers and footers, page numbering, and even printing while editing.

The final section of the book covers more general LocoScript topics like producing your own data disc, copying files between discs, using templates, blocks, phrases and the quick commands.

This is an excellent book which first time LocoScript users should have at hand. Even the old hands, who have never explored the wordprocessor to its full, will find this book a gentle path to enlightenment.



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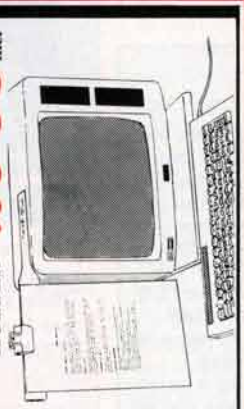

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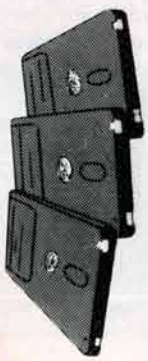

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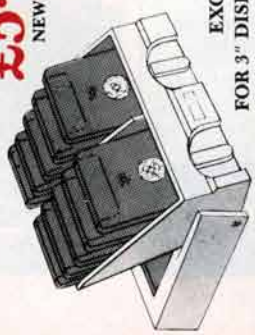

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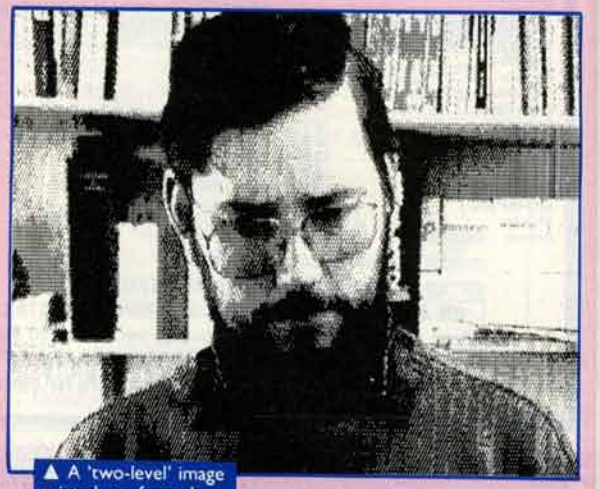
Have you ever felt that Robert Redford is just *too* handsome? If only he had a six inch nose, or three eyes, then we mortals wouldn't feel quite so inferior. Electric Studio's Video Digitiser package allows you to freeze TV images and store them on your PCW. If you have a Light Pen or Mouse drawing package, you can edit your screen idols as the fancy takes you.

The Electric Studio Video Digitiser is a piece of hardware which slots onto the expansion port at the back of the PCW, and into which you feed a video signal. The most usual signal source is a video recorder – you will need one which can output pure video, not just TV signals. Alternatively, you can connect a video camera directly to the Digitiser and capture your nearest and dearest on your PCW.

Once all the hardware is set up, you run the Digitiser program which displays the incoming video signals on the PCW screen. There are several possible ways to use the digitiser, depending on the quality of picture you need to get. In the simplest case, you can opt for a fairly crude image which gives you a continuous display of a couple of frames per second. When you see a particular frame you like, a press of the space bar will freeze the current screen.

Video vs. TV

There is an important distinction between a video signal and a TV signal. Because they are transmitted over long distances through the air to your aerial, TV signals are broadcast at 'Ultra High Frequency' (UHF). They also carry the video information in a special way, by superimposing it on a lower frequency signal. Pure video signals are transmitted more simply. The Video Digitiser is only designed to handle video signals, so you can't feed a TV signal directly into it.



▲ A 'two-level' image printed out from the digitiser

GREY MATTERS

Like a normal TV screen, the tube used by the PCW displays pictures by making a matrix of tiny phosphor dots (or 'pixels') light up. However, TV pictures contain much more detail than computers use to display a text file on screen – a TV has something like 600 lines on the screen, but the PCW has only 256. Also, TVs can make an individual phosphor dot almost any brightness it likes, but dots on the PCW screen are either on or off. So the PCW screen works in a different way to a TV, and you have to convert a TV picture before it can be displayed. The physical differences in the TV and PCW tubes mean that the PCW can't display a picture to the same quality as a TV.

The process of converting a TV-style picture to PCW-style picture is known as 'digitising'. Since the TV picture is made up of many more dots than the PCW picture, what the digitiser does is group together all the dots in the TV image which will be covered by one dot on the PCW image, and work out the average brightness of all those dots. If this average value is higher than a certain 'threshold', the dot on the PCW is turned on, otherwise it is left off.

The choice of the threshold value is very important to the digitising process. If you choose too low a value for the threshold, almost every dot on the PCW is turned on, and the picture is washed out. If the threshold value is set too high, almost no dots get turned on and the picture is too dark – both these cases result in pictures with bad contrast, where you can't see what is going on.

Once you've 'captured' a screen image you can either print it out or save it to disc for future use. The advantage of saving it to disc is that you can then edit the saved picture to 'improve' it. Suitable packages for editing the pictures are, surprise, surprise, the Electric Studio's Light Pen or Mouse packages.

There are two other ways to produce the digitised image, which are slower but give you a better picture. These are the 'two-level' and 'eight-level' modes. In the two-level mode, the digitiser takes two separate images, at different thresholds (see the box for what a 'threshold' is), and superimposes them. This allows the image to show more details of shadows and low contrast areas, although it only shows one frame a second or so.

The eight-level image goes further and composes a complex picture of eight different levels to get a still more detailed look. It takes a few seconds to build up a complete frame. Strangely enough, because of the extra complexity in the eight-level image it looks confused – the best quality seems to come from the two-level image. The Digitiser normally chooses the contrast in the images automatically, but if you want you can fine tune it manually. Unfortunately the manual doesn't give much guidance on doing this, so you have to use your experience as to what looks best.

Overall, the Digitiser is very easy to use, and comes with an adequate if not extravagant manual. It is fun to play with, and displays video images to the best abilities of the PCW's screen. Its main appeal at the moment will be to owners of Light Pen and Mouse drawing packages, but as desktop publishing systems come on the market it may be possible to include digitised pictures in text pages. At £99.95, though, some people will see it as a bit of a luxury.

PLUSES

- ⊞ Can store pictures for Light Pen or Mouse Art packages to use
- ⊞ Automatically adjusts to get a good image in all lighting
- ⊞ Simple to fit
- ⊞ Range of different operating styles for high quality
- ⊞ Can print out on a full A4 page

MINUSES

- ⊟ Can't take simple transmitted TV aerial signals
- ⊟ Manual doesn't give much help on manually tuning the thresholds

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CORRECT CONNECTING

Before you can use a printer or a modem, you'll need an interface to connect the two.

If you want to use a printer other than the one supplied with the PCW, it isn't just a matter of plugging it in where the ordinary printer is and pressing on regardless. Similarly, if you want to use a modem, you can't just tuck its lead into the PCW case and hope it does something.

To use any external hardware of this kind you will need to buy an 'interface' box which allows the PCW to talk to them. The interface provides two different types of connection, called 'serial' and 'parallel' – which one you use depends on the type of hardware you are connecting to.

Another important reason for buying an interface is to connect computers together directly. If you are thinking of buying a PC1512, or any other computer, you can transfer your existing data files from your PCW to the new machine by using a serial interface and the appropriate lead.

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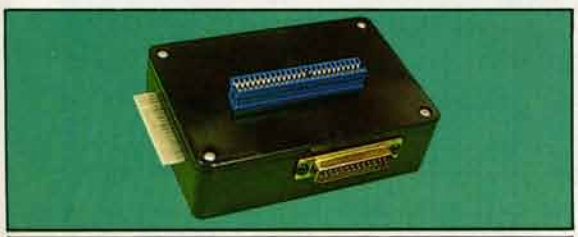

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Using the interface

All the interfaces mentioned here come with an instruction pamphlet telling you how to use CP/M's DEVICE and SETSIO commands to hook up your PCW via the interface to a printer or other piece of hardware. If you are using a communications modem, you will have some controlling software which sets the serial interface up properly, and the instructions for doing this will be in the manual for that software.

Remember that serial and parallel interfaces are only accessible from CP/M. LocoScript cannot (at the moment) send output to a printer through the parallel interface.

All four interfaces work in the same way, slotting onto the expansion port on the PCW, and provide a choice of either serial (RS232) or parallel (Centronics) output. If you only want to use a printer with a parallel interface, some manufacturers do sell parallel-only interfaces for marginally less than parallel with serial – eg the interface from Micro Control Systems at £47.15 inclusive.

The edge connector onto which the interfaces slot is actually part of the PCW circuit board, and this is not noted for its strength. If you use the interface a lot, a pair of screws is provided (except from Dataphone) to fix the box firmly onto the PCW. This saves wear and tear as you plug and unplug leads.

The Micro Control Systems interface has a bare circuit board at the back, whereas the rest are, more sensibly, enclosed boxes. Also, a misplaced flange on the MCS interface meant that the serial lead used in our review would not fit easily. Although not all leads are the same design, it could be a problem for you too.

The parallel port on the Dataphone interface is not a standard Centronics socket, but an edge connector as used on the Amstrad CPC machines. This is nice if you are running a printer which you had with your CPC, but awkward otherwise.

They all work, so choose by price and availability. EXIT

Boffin note

Serial interfaces are so called because they send out each of the 8 bits of a byte one after the other down a wire. Parallel interfaces send out all 8 bits at once on 8 wires in parallel, hence the name.

SERIAL OR PARALLEL?

There are two kinds of interfaces you can use – 'serial' and 'parallel'. Both types will send data, and the serial interface can receive it too. Which type you use depends on what is at the other end of the line. Serial interfaces are occasionally known as 'RS232' interfaces, for obscure reasons, and parallel interfaces are sometimes known as 'Centronics' interfaces, after the company which developed it.

A serial interface runs at a specific speed, sending out a set number of characters per second in a fixed format. To make the interface work, you have to separately set up the sending and receiving ends to match speeds. This often involves flicking tiny switches in dark corners of printers. The CP/M program SETSIO controls the PCW's serial interface.

A parallel interface, on the other hand, is very simple –just connect up the lead and off you go. The link doesn't work at any fixed speed, it just waits until the other end says 'ready' and then sends the next character. It follows that, given a choice, sane people use parallel interfaces.

Most printers use parallel interfaces, although some have the option of a serial one if you really want it. On the other hand, communication modems always need serial connections.

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PLEASE NOTE: EASY LABELLER IS A PURPOSE DESIGNED PROGRAM AND *NOT* A DATA BASE ADAPTION. THE NEED TO DEAL WITH CP/M DISC FILES IS *NOT* REQUIRED. HUNDREDS OF SATISFIED CUSTOMERS, BOTH EXPERIENCED AND FIRST TIME USERS, HAVE FOUND EASY LABELLER INVALUABLE FOR PRODUCING MAILING LABELS, TICKETS, CONTINUOUS ENVELOPES ADDRESSING AS WELL AS A QUICK AND EASY TO USE FILING SYSTEM.

An Amstrad Diary

Despite our application for an injunction, The High Court insists we publish the following extract from the diary of entrepreneur and toast-fancier, Nicholas Jenkins.

March 1st *I finally buy an Amstrad PCW8256. I get it home and unpack. Soon, I'll be rich! Disappointment. It's harder than it looks. I struggle vainly for 2 hours, before deciding to call the experts. I try, but they have gone home. I go to the library, but the relevant books are out on loan. In desperation I call the police. They send me to the Citizen's Advice Bureau. A kind lady helps. Midnight. I've done it! I've finally got the plug on. Now all I have to do is switch the power on. I do. Success! I begin a novel to end all novels.*

March 2nd *What fun! I decide to copy my system's disc. No sweat. Then I try something not mentioned in the manual. I run Diskit and try to copy a slice of toast. I'm a genius. This works, although I find the 'back up' slice too cold for human consumption. Quite by accident I have created my own business. A toast parlour. I devise a process for raising the temperature of the backup copy to that of the original by leaving it in drive M to warm through for 10 minutes. Market research shows that 8 out of 10 dentists can't tell the difference.*

March 8th *I try to copy a slice of toast covered with a layer of pate, but this requires more bites, and consequently I have to copy in 20 parts. I should have got the twin drive model. To my chagrin, I realise that had I the 8512, I could have put wholemeal in the second drive. As it is, I'm stuck with white bread, which is less nutritious. We learn from our mistakes.*

March 12th *Disaster. I invite a girl for tea, and she accidentally mistakes the disc containing my novel for a slice of toast and eats it. Moral of the story. Always keep a back up. I hadn't.*

March 20th *I'm facing bankruptcy! This morning, I found the toast template, from which I'd been making all the copies, had gone mouldy. It must be all the damp weather we've been having. Of course, all the copies are inedible and there is a near riot in the parlour. I set to work immediately on new blue prints for a mould resistant slice, but there is no time and I have a cash flow crisis.*

March 21st *The end. My other problems not withstanding, today I am served with a writ by a gentleman who can prove that my toast slices are identical to some his mother made before the war. I am a plagiarist! I must either buy the rights for a million pounds, or shut down. I shut down. I decide to use my Amstrad for the purpose for which it was designed. A new novel!*

March 30th *My novel is coming on fine. It is a profound psychodrama that compares the human condition to a decapitated chicken. David Puttnam has expressed an interest. My Amstrad is a dream come true.*

April 30th *Novel is taking shape. I'm interviewed on local television, and I describe my novel. I wear a black armband because David Puttnam has suddenly got cold feet after I sent him a specimen chapter. I need to attract someone else.*

May 7th *No news from the movie companies yet. Talent is out of fashion.*

May 15th *Disaster, again! This is worse than the titanic. Overnight, Animal Rights Activists hacked into my Amstrad and escaped with all the references to headless chickens. They left a note in the 'letters group' saying they intend to rehabilitate the chickens and that if I mistreat animals in my book again, I will be kidnapped and forced to learn CP/M and machine code. Some people are so vicious. They tell me to exchange the word chicken for carrot, because chopping the heads off carrots is a less barbarous act. They also suggest I try swedes, which they consider an underrated vegetable. Cruel, cruel world!*

May 30th *I carry on with the literary equivalent of a gangrenous leg. The constant references to carrots make it seem like a recipe book.*

July 1st *After a month of desperation my problems are over. In one of the greatest turnarounds in literary history, I convert my novel into a recipe book. It's to be called* A Thousand things to do with a headless carrot. *I use my Amstrad's multiple print faces to good effect, and I make a sale. What do I do with the money? Expand my system, perhaps? I start a new book:* Adventures in the Toast trade.

August 2nd *I'm bored. I can do everything I want with my Amstrad. I need a challenge. My publisher's gesture of sending me a year's supply of carrots instead of money is not appreciated.*

August 11th *I have a dream! I want to be a hacker. Then I could break into all the relevant systems, turn the National debt into a National surfeit, and surely I'll get that OBE. Or should I hold out for a Knighthood? I go to the Citizen's Advice Bureau, who tell me everything.*

August 20th *Attempts to swell my bank account misfire when it becomes clear that carrots are (for me at least) the only currency my bank now recognises. I only discover this after I have boosted my funds to twenty million carrots. I revise my* Who's Who *entry, adding that I am now one of the ten greatest carrot barrons in Great Britain.*

September 2nd *Success. I hack my way into the PCW that generates the American soap opera* Dallas. *Once inside, I discover that the programme has crashed and got into an infinite loop, and furthermore, that there is something wrong with the data retrieval system. Characters who have been erased can be brought back from limbo and suddenly inserted into current episodes. Has no one noticed? I play around. On impulse, I erase an entire series, and replace it with the phrase 'Oh Bobby, I just had a terrible dream'. Aren't I wicked?!*

September 20th *I am filled with remorse. I shouldn't have wiped out all those episodes. They cost so much to make. I must reverse the damage.*

September 25th *I'm in BIG trouble. Me and my Amstrad! They've changed the access code, and I can no longer break the system. I'm a criminal. Someone's bound to notice, and when they do, I'll be put away for years. I must make the most of my remaining freedom. I'll sell my carrots and go on a cruise.*

October 21st *Tomorrow, the programme is to be broadcast. Farewell, sweet world.*

October 23rd *A miracle! I'm still a free man! Last night,* Dallas *was broadcast and my mischief was there for all the world to see. No one noticed! An entire series was wiped out, and they took it like lambs. They convinced themselves that it is a perfectly legitimate twist to the plot. Has the world gone nuts, or have I eaten too many carrots?*

November 1st *I'm still a free man. The world really is a weird place. What can you trust except your Amstrad? The best is yet to come. When I was erasing all those episodes, I also programmed J.R. to grow a moustache and to slowly mutate into a member of the opposite sex. But not in that order. I'm confident of going undetected!*

EXIT

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ADAPTED BY DARRELL D.

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NEW YEAR'S DAYS

Thomas Sykes' calendar program can print out any year in the last four centuries. Is this overkill?

Farmers and garage proprietors are inundated with calendars at the start of each new year. For some reason spares distributors and fertiliser manufacturers feel their messages are best conveyed by pictures of the north of Scotland or of women with their figures showing.

The rest of us have to rely on digital watches or pocket diaries received as gifts from great aunts. Now you can cast your diaries to the wind, with the ultimate alternative courtesy of 8000 Plus. Thomas Sykes' neat and well-written program produces a calendar for any year of your choice. Type in the program, load up your printer, define the year and a well-formatted listing of the full twelve months chugs out onto the paper.

There is a slight restriction on the range of years the program can handle, but this is due to Pope Gregory and not to Mr Sykes. Any year before 1583, when the days were measured according to the Julian calendar, will not be calculated correctly. Since few readers will be able to remember back that far, though, this shortcoming should not present too much of a problem.

The calculation in lines 140 and 150 determines where New Year's day falls in the selected year, and the other days are worked out from there. The actual printing is governed by lines 210 to 280. Two months are printed at once, across the paper, producing a smart and useful finished calendar.

8000 PLUS AMSTRAD

1987 CALENDAR

JANUARY

SUN...		4	11	18	25
MON...		5	12	19	26
TUE...		6	13	20	27
WED...		7	14	21	28
THU...	1	8	15	22	29
FRI...	2	9	16	23	30
SAT...	3	10	17	24	31

FEBRUARY

SUN...	1	8	15	22
MON...	2	9	16	23
TUE...	3	10	17	24
WED...	4	11	18	25
THU...	5	12	19	26
FRI...	6	13	20	27
SAT...	7	14	21	28

MARCH

SUN...	1	8	15	22	29
MON...	2	9	16	23	30
TUE...	3	10	17	24	31
WED...	4	11	18	25	
THU...	5	12	19	26	
FRI...	6	13	20	27	
SAT...	7	14	21	28	

APRIL

SUN...		5	12	19	26
MON...		6	13	20	27
TUE...		7	14	21	28
WED...	1	8	15	22	29
THU...	2	9	16	23	30
FRI...	3	10	17	24	
SAT...	4	11	18	25	

MAY

SUN...		3	10	17	24	31
MON...		4	11	18	25	
TUE...		5	12	19	26	
WED...		6	13	20	27	
THU...		7	14	21	28	
FRI...	1	8	15	22	29	
SAT...	2	9	16	23	30	

JUNE

SUN...		7	14	21	28
MON...	1	8	15	22	29
TUE...	2	9	16	23	30
WED...	3	10	17	24	
THU...	4	11	18	25	
FRI...	5	12	19	26	
SAT...	6	13	20	27	

JULY

SUN...		5	12	19	26	
MON...		6	13	20	27	
TUE...		7	14	21	28	
WED...	1	8	15	22	29	
THU...	2	9	16	23	30	
FRI...	3	10	17	24	31	
SAT...	4	11	18	25		

AUGUST

SUN...		2	9	16	23	30
MON...		3	10	17	24	31
TUE...		4	11	18	25	
WED...		5	12	19	26	
THU...		6	13	20	27	
FRI...		7	14	21	28	
SAT...	1	8	15	22	29	

SEPTEMBER

SUN...		6	13	20	27
MON...		7	14	21	28
TUE...	1	8	15	22	29
WED...	2	9	16	23	30
THU...	3	10	17	24	
FRI...	4	11	18	25	
SAT...	5	12	19	26	

OCTOBER

SUN...		4	11	18	25
MON...		5	12	19	26
TUE...		6	13	20	27
WED...		7	14	21	28
THU...	1	8	15	22	29
FRI...	2	9	16	23	30
SAT...	3	10	17	24	31

NOVEMBER

SUN...	1	8	15	22	29
MON...	2	9	16	23	30
TUE...	3	10	17	24	
WED...	4	11	18	25	
THU...	5	12	19	26	
FRI...	6	13	20	27	
SAT...	7	14	21	28	

DECEMBER

SUN...		6	13	20	27
MON...		7	14	21	28
TUE...	1	8	15	22	29
WED...	2	9	16	23	30
THU...	3	10	17	24	31
FRI...	4	11	18	25	
SAT...	5	12	19	26	

▲ At no extra charge, here's a free 8000 Plus calendar for the coming year

```
100 CLEAR:PRINT CHR$(27)+"E"+CHR$(27)+"H"
110 DIM M$(12):DIM M(12):DIM B(12)
120 INPUT"CALENDAR YEAR REQUIRED ",Y
130 :
140 L=Y-3+INT((Y+3)/4)
150 E=-(L-7*INT(L/7))
160 FOR C=1 TO 12:IF C<8 THEN READ D$(C)
170 READ M$(C):READ M(C):IF INT(Y/4)=Y/4 THEN M(2)=1
180 E=E-M(C-1):B(C)=E+(7 AND E<-5)
190 E=B(C):NEXT
200 :
210 LPRINT TAB(28);Y;"C A L E N D A R":N=1
220 FOR C=1 TO 6:LPRINT TAB(18);M$(N);TAB(51);M$(N+1):LPRINT
230 FOR W=1 TO 7:P=1:X=0:A=10:T=16:FOR H=1 TO 2
240 D=B(N+X)+(W-1):LPRINT TAB(A);D$(W);"...";
250 FOR P=1 TO 6:IF D<1 OR D>28+M(N+X) THEN 270
260 LPRINT TAB(T);D;
270 T=T+4:D=D+7:NEXT:X=1:A=43:T=49
280 NEXT:LPRINT:NEXT:LPRINT:N=N+2:NEXT
290 :
300 DATA SUN,JANUARY,3,MON,FEBRUARY,0,TUE,MARCH,3,WED,APRIL
310 DATA 2,THU,MAY,3,FRI,JUNE,2,SAT,JULY,3,AUGUST,3
320 DATA SEPTEMBER,2,OCTOBER,3,NOVEMBER,2,DECEMBER,3
```

◀ The short and efficient listing which prints calendars for any year since 1583!

LOGO PRINT

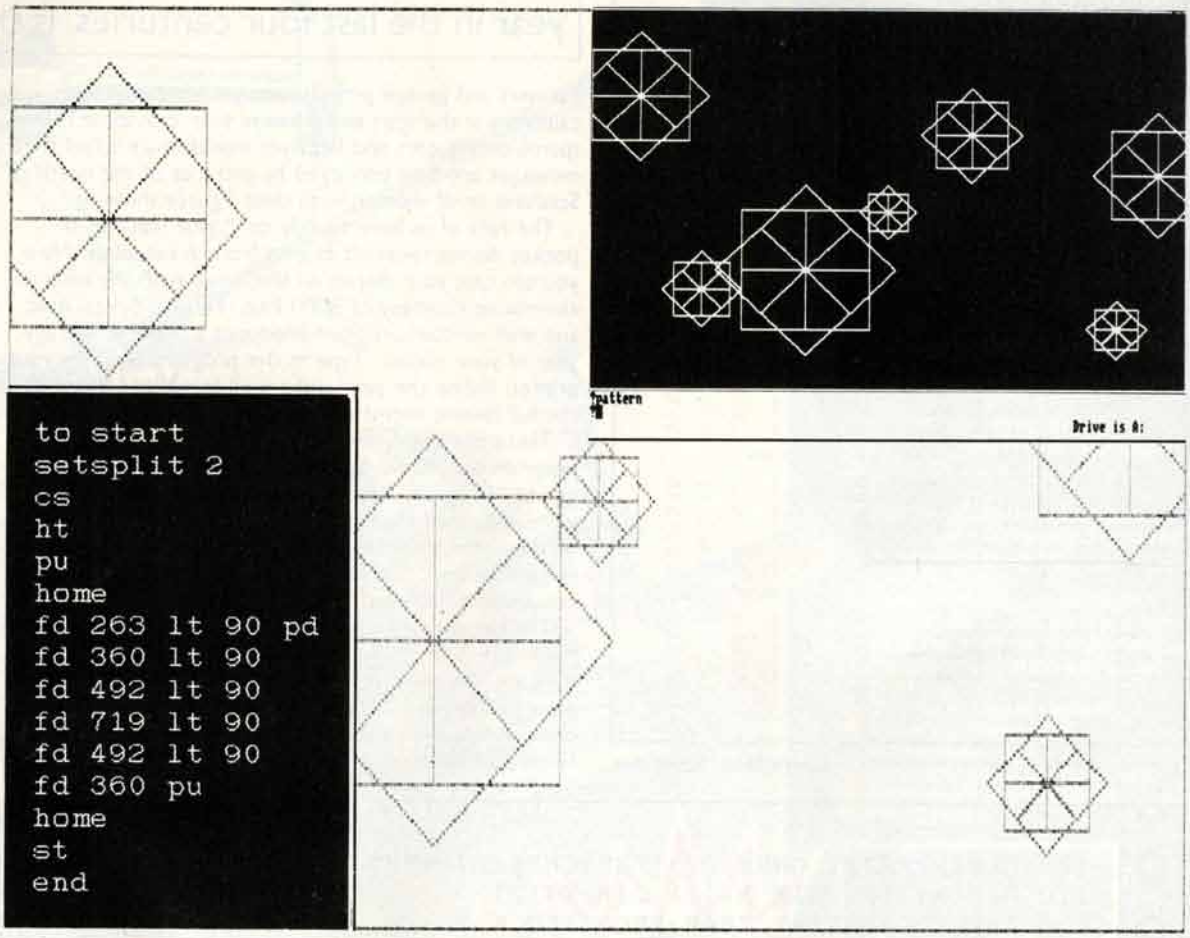
by Anthony Gravell

One of the functions missing from Digital Research's version of Logo is a command to write graphics output to the printer. Although you can of course use [EXTRA]+[PTR] to take a dump of the whole screen, the resulting print is small and includes the status line.

Anthony Gravell's BASIC listing takes a saved Logo picture file (a file with a .PIC filetype) and prints out a near-A4 dump. In addition, Anthony has provided a short Logo listing which draws a frame around the picture area which will be included in the printout. After this, you've no excuse for leaving your best Logo creations in a drawer. Why not send them in? – we'll publish the best.

Boffin Note

The program works by reading in the data from the Logo picture file and loading it byte by byte into the string 'char$'. It then prints a column of eight dots by LPRINTing char$. It prints each column twice in order to expand the picture to the correct shape on the paper. At the end of each line of the picture it drops down to the next line and starts again. It repeats this procedure until it reaches the end of the picture file.



► A Logo screen dump using the Picture Printer, with a full screen dump (using EXTRA+PTR) inset

.PIC Files

If you want to save a Logo picture as a file on disc, give the command 'savepic "filename', where 'filename' is the name you want the picture to have on disc. Each picture file takes 23K of space.

To save the set of procedures which produce the picture, type 'save "filename', instead. The length of the file will vary with the number and complexity of procedures you've defined.

Logo picture frame procedure ►

```
to start
setsplit 2
cs
ht
pu
home
fd 263 lt 90 pd
fd 360 lt 90
fd 492 lt 90
fd 719 lt 90
fd 492 lt 90
fd 360 pu
home
st
end
```

▼ Picture printer listing

```
100 INPUT "Enter name of picture to be printed";a$
110 a$=a$+".pic"                          :REM   MAKES FILETYPE AS LOGO PIC FILE
120 e$=CHR$(27)                           :REM   SETS e$ AS AN 'ESC' CHARACTER
130 lsb=220:msb=1                         :REM   SETS SIZE OF 'BIT-IMAGE' PATTERN
140 LPRINT e$;"A";CHR$(8);                :REM   SETS PTR L/F TO 8 DOTS
150 OPEN "R",1,a$,1                       :REM   THESE TWO LINES PREPARE THE FILE
160 FIELD 1,1 AS char$                    :REM          TO BE READ
170 FOR x=1 TO 90
180 LPRINT e$;"K";CHR$(lsb);CHR$(msb);    :REM   SETS PTR 'BIT-IMAGE' MODE
190 WIDTH LPRINT 255                      :REM   SETS PTR LINE LENGTH TO INFINITE
200 FOR y=21458+x TO 128+x STEP -90
210 GET 1,y                               :REM   READS RECORD y INTO char$
220 LPRINT char$;char$;
230 NEXT y
240 LPRINT                                :REM   SENDS CR / LF TO PTR
250 NEXT x
260 CLOSE                                 :REM   SHUTS FILE READY FOR END
```

EQUATION SOLVER

by John Langley

Do you remember (-b±√(b ↑ 2-4ac))/2? Join the gang. It is in fact the solution of a quadratic equation, the plague of all 'O' level students and delight of maths teachers everywhere. With this formula under your belt, equations of the form ax ↑ 2+bx+c=0 will hold no fear for you.

If they still turn your knees to blancmange, however, help is at hand with John Langley's lightning quadratic equation solver. With it you will gain instant 'street credibility' in being able to crib your children's homework and may even find a use for quadratics in everyday life (if so please tell us about it). This piece of programming wizardry finds all solutions to a given equation, including the imaginary ones which involve the square root of minus one. I've always wondered whose imagination was filled with these numbers.

Simply enter the values of the constants a, b and c, and the program will painlessly extract its roots to two decimal places and display them for your approval. The only point to remember is that PCWs are not yet legitimate tools in GCE or GCSE exams!

```
Enter values for 'a', 'b' and 'c', separated by commas.
Be careful with plus and minus signs. Enter 9999,0,0 to finish.
? 2,-3,-7

The roots are  2.77  and -1.27

Enter values for 'a', 'b' and 'c', separated by commas.
Be careful with plus and minus signs. Enter 9999,0,0 to finish.
? 1,-2,1

The roots are both  1

Enter values for 'a', 'b' and 'c', separated by commas.
Be careful with plus and minus signs. Enter 9999,0,0 to finish.
? 1,0,1

The Roots are complex conjugate:   ( 0 + i1)  and  ( 0 - i1)

Enter values for 'a', 'b' and 'c', separated by commas.
Be careful with plus and minus signs. Enter 9999,0,0 to finish.
?
```

◀ A typical run of the quadratic solver

```
10 PRINT
20 PRINT
30 REM       Program to solve quadratic equations to 2 decimal places.
40 REM
50 PRINT " Equation solver for quadratics of the form ax^2 + bx + c = 0"
60 PRINT "('a', 'b' and 'c' must be real numbers and 'a' mustn't equal 0)"
70 PRINT
80 PRINT "Enter values for 'a', 'b' and 'c', separated by commas."
90 PRINT "Be careful with plus and minus signs. Enter 9999,0,0 to finish."
100 PRINT
110 INPUT a,b,c
120 WHILE a<>9999
130 IF a=0 THEN PRINT "You have entered a=0! Please try again.":GOTO 210
140 REM      Test discriminant b^2-4ac:
150 REM      If b^2-4ac > 0 then there are two different real roots
160 REM      If b^2-4ac = 0 then there are two identical real roots
170 REM      If b^2-4ac < 0 then there are two complex conjugate roots
180 PRINT
190 PRINT
200 ON SGN(b^2-4*a*c)+2 GOSUB 400,360,310
210 PRINT
220 PRINT
230 PRINT "Enter values for 'a', 'b' and 'c', separated by commas."
240 PRINT "Be careful with plus and minus signs. Enter 9999,0,0 to finish."
250 PRINT
260 INPUT a,b,c
270 WEND
280 PRINT "Program terminated."
290 END
300 REM
310 REM      Two different real roots
320 PRINT "The roots are ";ROUND((-b + SQR(b^2 - 4*a*c))/(2*a),2);" and ";
330 PRINT ROUND((-b - SQR(b^2 - 4*a*c))/(2*a),2)
340 RETURN
350 REM
360 REM      Two identical real roots
370 PRINT "The roots are both ";ROUND(-b/(2*a),2)
380 RETURN
390 REM
400 REM      Complex conjugate roots
410 LET X=ROUND(-b/(2*a),2)
420 LET Y=ROUND(SQR(ABS(b^2-4*a*c))/(2*a),2)
430 PRINT "The Roots are complex conjugate:    (";X;"+ i"MID$(STR$(Y),2);
440 PRINT ")  and  (";X;"- i"MID$(STR$(Y),2)")"
450 RETURN
```

◀ The quadratic equation solver

How to type a listing in

The first thing is to load up Mallard Basic. To do this, turn on the PCW (or reset it with [SHIFT]+[EXTRA]+[EXIT]) and into the top drive put the CP/M startup disc, which is the other side of the LocoScript startup disc.

When you get the A> prompt, type BASIC, **and after a few seconds a message about "Mallard-80 BASIC" appears and it says "Ok". Now copy out each line in the listing very carefully, including the line numbers, and press [RETURN] at the end of each line. Be careful to distinguish between capital I and the digit** 1, **O and** 0, **and colons and semicolons. During a long listing it's important to save your work every 15 minutes or so. And for all listings you must save them for attempting to run them. To do this, find a work disc you can write to, put it in the disc drive, and type**
SAVE "PROGRAM" [RETURN]. **Or you can choose any other name instead of the word "program".**

When you've finished, type LIST [RETURN] **and the whole program will appear on the screen. Check it, and if any lines are wrong, you can correct them with the line editor. For example, if the mistake was in line 100, you would type** EDIT 100 [RETURN], **and use the cursor keys and delete keys to fix the line. Press [RETURN] when the line is correct.**

If you have mistyped a line number, so that a line appears in the wrong sequence, just type the incorrect line number and the [RETURN], which effectively deletes the line, then retype the line with its correct number.

When you're satisfied the listing is correct, SAVE the finished version (see above) and now your program is ready to run. Just type
RUN [RETURN]
And yes...it goes wrong
It's more than likely, no matter how meticulously you copied the listing out, that the first time you run the program it won't work properly. You may get some arcane message like "Syntax error in 100". List the program out (using LIST), and carefully check the screen against the original in the magazine.

Incidentally apart from Syntax errors, the line number mentioned in the error message isn't necessarily where the error is located – it's simply the point at which the computer gets stuck. You may have to look elsewhere for the error.

When you've found it, either retype the line wholesale, or correct it by using the line editor as described above. Type RUN **again, and hopefully it works this time. If not, go on correcting and re-running until it does. Finally, don't forget to save the corrected version again.**

When you've finally finished with the program, typing
SYSTEM [RETURN] **returns you to CP/M.**

To run the phone coster another day, start BASIC up normally, put the disc you saved the program on in the drive and type
LOAD "PROGRAM" [RETURN] **or whatever name you gave the program when you saved it. Then as before, when it says Ok, type**
RUN [RETURN].

DAY OF BIRTH

by Robin Clapp

Monday's child is fair of face, Tuesday's child is full of grace... As one of history's most graceful babies, I was impressed to find that this little listing confirmed my long held suspicions. Yes indeed, I was born on a Tuesday. If you'd like to discover whether you 'have far to go', or are 'happy and blythe and good and gay', this little routine is just the job.

Enter your date of birth and away you go. You can even check it out with the calendar program in this issue (or vice versa). Beware that Pope Gregory doesn't enter into this one, though, as it only works in the range 1900 to 1999.

```
run
Enter date of birth in the form DD,MM,YY (e.g. 8,10,60)? 2,12,52
You were born on a Tuesday
Ok
run
Enter date of birth in the form DD,MM,YY (e.g. 8,10,60)? 17,5,63
You were born on a Friday
Ok
run
Enter date of birth in the form DD,MM,YY (e.g. 8,10,60)? 11,3,61
You were born on a Saturday
Ok
run
Enter date of birth in the form DD,MM,YY (e.g. 8,10,60)? 17,3,63
You were born on a Sunday
Ok
```

▼ The Birth Day calculator

▲ Guess who's birth dates these are?

```
10 DIM x$(12),x(12)
20 FOR i=1 TO 12:READ x(i):NEXT
30 DATA 0,3,3,6,1,4,6,2,5,0,3,5
40 INPUT "Enter date of birth in the form DD,MM,YY (e.g. 8,10,60)";a,b,c
50 d=INT(c/4)+c+a+x(b)
60 e=1+ROUND(7*(d/7-INT(d/7)))
70 FOR i=1 TO 7:READ n$(i):NEXT
80 DATA Sunday,Monday,Tuesday,Wednesday,Thursday,Friday,Saturday
90 PRINT "You were born on a ";n$(e)
```

Unfortunately there were a couple of mistakes in last month's 'Auto-Menu' program. Lines 70 and 110 need to be altered as follows:

```
70 GET 1,1:FIELD 1,128 AS f1$
110 desc$(a%+2)=UPPER$(MID$(f1$,f%+1,f1%-f%-1))
```

Several readers have also had trouble in producing the exponentiation arrow '↑', which appears as a small inverted 'v' in line 70 of the 'Mortgage Checker' listing. This is obtained by pressing [EXTRA]U.

Finally, Natalie Kehr has written to point out that we missed some instructions from her multi-copy routine:
1 Set pitch to 10 characters per inch.
2 Set the right-hand margin to 78 or less.
3 Don't use underlining or fancy characters (the codes aren't transferred).
4 Make a 'Page Image' ASCII file in the first group of a non-Locoscript disc.

Can YOU program?

If so, you could earn hard cash (£10-100) and instant fame by having your programs printed in this magazine. We're interested in SHORT programs of GENERAL INTEREST: utilities, graphics games and the like.

Programs of 1 to 20 lines are particularly likely to be printed (because we can manage several in an issue) – those that are longer have to be really good, so don't get carried away with lots of lines devoted to 'window-dressing' the program. Instructions can be given in accompanying documentation much more efficiently.

To submit a listing you must supply the following:
1. A printout of the listing.
2. A disc on which it is saved.
3. A stamped, addressed, padded bag for return of your disc.
4. An explanation of what the program does and how to use it.
5. A signed statement confirming that the program is your original work and hasn't been submitted to anyone else.

Send your submission to: *Listings, 8000 Plus, The Old Barn, Somerton, Somerset, TA11 7PY.*

Please allow up to 40 days for return of your disc – the programs will be assessed all in one batch once a month!

TIP-OFFS

Top tips giving the low-down on LocoScript, CP/M and the rest of the PCW's dark secrets

Welcome to four bumper pages of Tip-Offs to get the new year off to the best possible start. Again we have been amazed and astounded at the ingenuity of you tipsters – keep your inspired insights coming to *Tip-Offs, 8000 Plus, The Old Barn, Somerton, Somerset TA11 7PY*.

We'll give £20 for the best tips each month. This time A.J. Clarke of Barbican in London cleans up with his revelations on how to make SuperType more flexible, and another pair of tenners go to Stewart McCall of Corby in Northants, who has found an ingenious way of running BASIC programs.

Quick line moves in NewWord

NewWord has a little-known short cut which allows you to move single words and lines around very fast, by using its 'undelete' command.

Normally to move a line you have to mark it as a block and then do a [ALT]KV (move block command). Instead, to move a line, go to the line, do [ALT]Y (delete line), move the cursor to where the line is to go to and do [ALT]U (undelete). The line reappears magically. This works for words too; [ALT]T deletes a word, and [ALT]U reproduces it wherever you happen to be at the time.

To copy a line rather than move it, delete it with [ALT]Y to store it in the move buffer, immediately undelete it to reinstate it, move to where you are copying it to, and undelete again. This way you can duplicate a line repeatedly – [ALT]Y once then [ALT]U 20 times results in 20 copies of the same line.

Souped up SuperType

SuperType, previously marketed by Gemini as FontGem, is a useful program which offers 8 new typefaces for LocoScript and CP/M with the standard PCW printer.

Despite what the manual leads you to believe, it is possible to have all the SuperType fonts on one LocoScript work disc. The standard LocoScript printer font is contained in the file MATRIX.STD on the distribution disc – Digita have, in effect, supplied eight different alternatives that can be used in its place.

When LocoScript starts up from your work disc, it looks for the MATRIX.STD file and sets up its printer font from that. Therefore, to change the font you have to use a different MATRIX.STD when you start. To make up a LocoScript work disc with all SuperType's fonts on it, try this:

Use DISCKIT to make a copy of your LocoScript master disc on a new work disc. Start LocoScript going and erase (using [f6]) any files you don't want, such as the tutorial example files, to give yourself enough disc space to work.

Now, in the Disc Manager screen, press [f8] (Options), move the cursor bar over 'Hidden' and press the ⊞ key, then [ENTER] to quit the menu. This now lists out the Hidden files on the disc, which includes the MATRIX.STD in the first group.

Now, using [f3], copy MATRIX.STD to a new file called MATRIX.OLD, so your disc manager screen ends up like the one shown.

Now put in your auto-loading SuperType disc (created using steps 1-7 in the manual), reset the PCW and let the program load. Choose which font you want to use – for example, the 'Business 1' font, number 1 on the list. So press '1', and then when asked, 'L' to install a LocoScript disc. Follow SuperType's instructions and wait for it to do its work. Now restart LocoScript from your new disc, and show the hidden files again with [f8]. You will still have a MATRIX.OLD and a MATRIX.STD file, but SuperType has modified the MATRIX.STD to hold the Business 1 font.

Suppose that you also want to have an Olde English font on the disc: using the [f5] menu, rename MATRIX.STD to be MATRIX.B1 (for 'Business 1'), and copy with [f3] MATRIX.OLD to be MATRIX.STD, so you now have *three* MATRIX files.

▼ LocoScript before using SuperType for the first time

▼ A LocoScript disc with all the SuperType fonts on it

Restart SuperType, via CP/M, and with the same LocoScript disc install the Olde English font. When you run LocoScript again, rename MATRIX.STD to be called MATRIX.OE (for 'Olde English'). For every font you want to use, repeat this process – ie. copy MATRIX.OLD to be MATRIX.STD, run SuperType normally, then rename the MATRIX.STD to be MATRIX.??? (??? being three letters to remind you which font it contains).

Now you can use this disc to get to any of SuperType's fonts. To change fonts, start LocoScript up, delete the current MATRIX.STD and then copy the MATRIX.??? of your choice to be the new MATRIX.STD. Press [SHIFT]+[EXTRA]+[EXIT] to reset the PCW, and the new font will be loaded. That disc will continue to generate that font until you next change its MATRIX.STD file. You can get back to the standard font by using MATRIX.OLD as the MATRIX.STD.

Unfortunately, this method still doesn't allow you to mix fonts in a document – you can only print in your current SuperType font. Be careful with all the renaming and copying that you always have a file called MATRIX.STD, or LocoScript won't start at all. Don't forget too that SuperType only works with LocoScript version 1.2, not (yet) LocoMail or LocoSpell.

A J Clarke, London EC2

LocoScript short codes

There are a lot of short cuts to 'doing without menus' in LocoScript. Many of these are shown in the mystical shorthand of the capital letter codes in the Set and Clear menus – see page 133 of the dreaded manual.

It's simple really! All you do is to type, for example, ⊞SB to get SuBscript, and ⊟SB to cancel that particular code. Type fast enough, and the 'Set' menu won't appear at all, so this puts the code into your text very much more rapidly than using either the ordinary menus or even the Set and Clear menus. If you use the 'f1 Show' menu and tick the 'Codes' option you will see the codes appear as you type them in the document as normal.

If you press ⊞ and forget what initials you need to type to get a code, press 2 on the keypad (or just wait a second) and the Set menu appears. Now you can see the right letters capitalised in the relevant choice – so I for italic, RV for reverse and so on.

Finally, to get a hard space you press ⊞(space bar). However, you can't get hard hyphens with ⊞-, which seems to be a 'bug' or a 'feature'!

Ray Gladden, Crewe

Running CP/M software

When you buy a new piece of software to run under CP/M, no matter how simple it is there always seem to be tortuous instructions in an obscure manual designed to prevent you using it.

The first thing you always ought to do is use DISCKIT to make a backup of the master disc as described in the Amstrad manual (although some programs like Prospell or certain games cannot be copied).

Secondly, put your newly copied disc in the drive, type `DIR [RETURN]` and you will see a directory listing of all the files on the disc. The files have names of up to eight letters, a dot, and three more letters. The final three letters tell CP/M what *kind* of file it is – .BAS means a BASIC program, and .COM means a CP/M command file.

So, if you have just bought a (fictional!) database called 'TurKey', on the directory listing you should see a file called TURKEY.COM or TURKEY.BAS. If .COM, the program will be run by typing `TURKEY [RETURN]`, and if .BAS then by loading BASIC and typing `RUN "TURKEY" [RETURN]`.

Unfortunately, you'll still have to read the manual to get any further.

Running BASIC files from CP/M

When you are faced with the awesome 'A>' prompt in CP/M and you type a name like `BURBLE [RETURN]`, CP/M looks on the current disc for a file called BURBLE.COM and runs it. However, there is a sneaky way of hacking CP/M so that instead CP/M will look for BURBLE.BAS and run that as a BASIC program – handy if you do a lot of BASIC programming.

You will need:

- One blank, formatted disc
- PIP.COM
- J14CPM3.EMS
- BASIC.COM
- SID.COM (side 3 of the master discs)

Using PIP, transfer the above files onto the new disc, and then, type

`SID J14CPM3.EMS [RETURN]`

(Despite the name, nothing to do with British Gas shares). Now for the tricky bit: very carefully type the following instructions in (pressing [RETURN] at the end of each line). If you get any of them wrong, type [ALT]C to abandon SID and get back to CP/M, then re-enter the SID command and keep trying until you get everything right:

```
S5d47
"BAS
.
S5ca2
"BASIC  COM (3 spaces between
             BASIC and COM)
.
S59dc
"EXEC.BAS
20
.
W J14CPM3.EMS
[ALT]C
```

What this has done is to hack your CP/M startup file (the .EMS file) so that whenever it would normally run a .SUB file it looks for a .BAS file instead. Normally, when CP/M starts it looks for a file called PROFILE.SUB and, if it is there, automatically runs the command SUBMIT PROFILE. Your new version of CP/M instead looks for a BASIC program file called EXEC.BAS, loads BASIC up and runs it.

For example, take an existing BASIC program – maybe a simple one-liner like

`10 PRINT "hello"` –

copy it onto your modified disc and rename it to be EXEC.BAS. Now reset the PCW with [SHIFT]+[EXTRA]+[EXIT], and you will see EXEC.BAS automatically run in front of your eyes.

Now for the final frill. Make sure you have the file SETDEF.COM on your current disc and type

`SETDEF [ORDER=(SUB,COM)]`

As long as you used your modified CP/M disc to start the PCW with, when you type at the 'A>' prompt something like `TEST [RETURN]`, CP/M runs the BASIC program TEST.BAS. Ordinary

One word of warning: with your modified CP/M system you cannot use SUBMIT.COM or the PROFILE.SUB facility – this is why you must keep the unmodified CP/M work disc around so that you can go back to it if necessary.

S McCall, Corby

```
A)b:sid j14cpm3.ems
CP/M 3 SID - Version 3.0
NEXT MSZE  PC  END
A100 A100 0100 DAFF
#s5d47
5D47 53 "BAS
5D4A 20 .
#S5ca2
5CA2 53 "BASIC  COM
5CAD 1A .
#s59dc
59DC 50 "EXEC.BAS
59E4 53 20
59E5 00 .
#W j14cpm3.ems
0140h record(s) written.
#^C
A)
```

▲ Using SID to modify CP/M

```
CP/M Plus  Amstrad Consumer Electronics plc

v 1.4, 61K TPA, 2 disc drives, SIO/Centronics add-on, 368K drive M:

A)SETDEF [ORDER=(SUB,COM)]

Search Order        - SUB, COM

A)test

Mallard-80  BASIC with Jetsam  Version 1.29
(c) Copyright 1984  Locomotive Software Ltd
All rights reserved

31597 free bytes

hello
Ok
list
10 PRINT "hello"
Ok
```

▲ And a TEST.BAS file running straight from CP/M

Countdown

If you are writing long documents like books, you will probably be storing them in separate chunks since LocoScript doesn't handle screens of text very fast. This means that you have to jiggle the page numbering so that the second chunk begins one page after the first chunk ends, and so on.

A quick way of finding out how many pages a section has without actually editing it is to 'print' it. Press P for print, and select the 'Print some pages' option. The menu now tells you what the last page in the document is numbered as. Press [CAN] to cancel the print command. Now you can set the first page number for the next section correctly.

Angela Roger, Stirling

More SuperCalc print styles

People seem to be having a lot of trouble getting SuperCalc to produce high quality ('NLQ') print. After getting it going with `SC2 [RETURN]`, you can change between draft and NLQ at will with the [PTR] key. To change, press [PTR], use the cursor right key to highlight "high quality", press ⊞ and [EXIT].

If you want to change the style of print, to get italics or whatever, give the / O command for 'Output' and as normal choose D or C for 'Display' or 'Contents'. But before choosing P for 'Printer' choose S for 'Setup' – you then enter S again for setup codes and the following can be used to change the style of the spreadsheet you print out:

Condensed text	[ALT] O	(on)
	[ALT] R	(off)
Bold	[EXIT] G	(on)
	[EXIT] H	(off)
Enlarged text	[ALT] N	(on)
	[ALT] T	(off)
Italic	[EXIT] 4	(on)
	[EXIT] 5	(off)
Underline	[EXIT] -1	(on)
	[EXIT] -0	(off)
Pica text	[EXIT] P	
Elite text	[EXIT] M	
Superscript	[EXIT] S0	(on)
Subscript	[EXIT] S1	(on)
Both of these	[EXIT] T	(off)

Will Parfitt, London SE22

Bits of WordStar

The listing published in the December 8000 Plus to make WordStar files readable works fine, but is a slight case of overkill. The objective is to copy all the characters of a WordStar/NewWord document file to a new file, without their top bits set. This converts the file from an illegible document to a plain ASCII file suitable for TYPEing or printing.

PIP can do the job very easily with its [Z] option. To view a WordStar document called `filename` on the screen, type `PIP CON:=filename[Z]` and to send the file to the printer `PIP LST:=filename[Z]`

GR Yorke, Newcastle, Staffs

Tricks of Headers and Footers

The rules for placing headers or footers on solely the first or last pages of a document with LocoScript can be very confusing.

Using the 'Pagination menu' you can set 'First page differs' for headers and footers, and then you go to set up the actual header and footer text. In this 'Editing Pagination' screen, there is a section marked "End of footer 1: used only for the first page", but if you put a footer in here and then print out a document of only one page, the footer will not appear.

If you read the Addendum to the LocoScript manual very carefully, you will find a paragraph which reads "LocoScript arranges that the Header text on a single page document will be the one for a first page, *and its Footer text the one for a last page*."

The moral is then, for single page documents, either put the footer for the page in the section marked 'End of footer 2: used for all pages except the first', or to use the 'All pages same' pagination instruction.

Mrs. H. Hammond, Bingley

Logo 'FILL' command

DR Logo as featured on the PCW has a hidden command which is not listed in the Amstrad manual – a command to fill an enclosed area with shading.

To use the command, just put the turtle inside the blank enclosed area that you want to fill. Make sure the pen is down (with `pd`), type `fill` and press [RETURN]. You can even erase an area of solid white by having the pen in erase mode (type `pe`) and then `filling`, but it does totally erase the entire shape.

Dean Rossiter, Wellingborough

Margin notes

If you have to type up the script for a speech or a brief, you need to leave a wide right hand margin into which you can place notes, references or instructions for switching visual aids on and off.

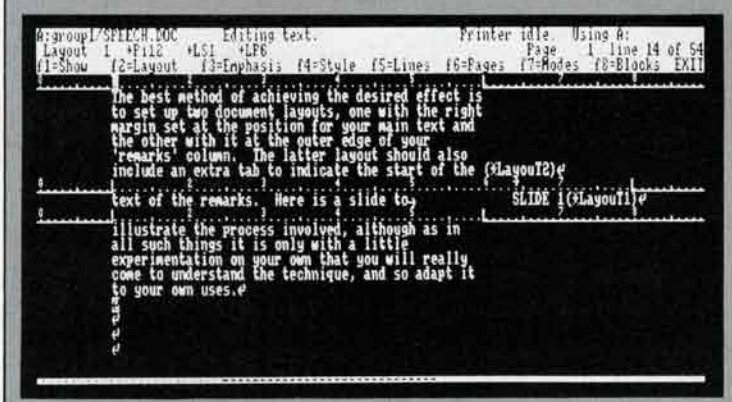
There is no simple way of writing text in multicolumn format, but you can do occasional margin notes without too much trouble. Suppose that you normally write text between a left margin of 10 and a right margin of 80, but you want to leave a space at the right for notes. You need to have one format for writing text between columns 10 and 60, and one for notes between columns 64 and 80 (leaving a small column gap).

While editing your document, use [f2] to create a Brand New Layout with the margins at 10 and 60 as desired. Then create another new Layout with the margins at 10 and 80, and a Tab marker in column 64.

Type in all your text using the first (narrower) layout, and then go through finding the points which you need to have margin notes for. On each line to be annotated, type a [RETURN] at the end of the line above, insert the code for the wider layout, type a TAB at the end of the next line to take you into the note column, type the note, enter the code for the narrower layout again and press [RETURN].

Since putting these [RETURN]s at the end of lines stops them being justified as they would if they were part of a paragraph, your document will look best if you have justification turned off throughout.

Alexander Deuchar, Bushey



▲ This ...

```
The best method of achieving the desired effect is
to set up two document layouts, one with the right
margin set at the position for your main text and
the other with it at the outer edge of your
'remarks' column.  The latter layout should also
include an extra tab to indicate the start of the
text of the remarks.  Here is a slide to                SLIDE 1
illustrate the process involved, although as in
all such things it is only with a little
experimentation on your own that you will really
come to understand the technique, and so adapt it
to your own uses.
```

▲ ... prints out as this

Full disc trouble in LocoScript

If you are writing a document which takes up to 16k bytes onto a disc which only has 15k bytes or less to spare, you are in trouble. On trying to exit the document you will get a menu offering either 'Disc Management' or cancelling the operation. Cancelling returns you to the Disc Manager screen and loses the document for ever.

It is possible, if you select disc management, to move some other document into Drive M (with the 'f4=Move' key) to make room for the new document to be saved. Pick a document larger than the one you are currently editing, move it to the M drive and press [EXIT] to return to your beloved text, whereupon you can finish saving it in the normal manner. But you must remember to copy the document that you moved to the M drive back onto a proper floppy disc before you turn the PCW off.

Ted Nield, Southampton

Coping with disc errors

Sometimes for inexplicable reasons the PCW resolutely refuses to believe that a disc you are asking it to read from is usable. Some typically friendly message like 'TRACK #1 – SECTOR #03 MISSING ADDRESS MARK' appears on the screen, and you break into a cold sweat as you have visions of three weeks' typing going up in smoke.

Often such messages do indicate serious trouble, and the data on the disc is gone for ever. But occasionally you are just the victim of a glitch. From CP/M, try what buffs call a 'warm boot', which means pressing [ALT]+C. This may rectify some disc errors. From LocoScript, press the 'f1=Disc Change' key from the Disc Management Screen.

If all else fails, turn the PCW off, restart it and try again. If the disc still won't register, start panicking. You could try contacting some of the PCW user groups to see if any of their resident hackers can repair spoiled discs.

David Smith, Paddock Wood

Thumbing a lift

When running HitchHiker's Guide to the Galaxy, the reference card provided is sketchy, to say the least, and to make matters worse the screen seems to overwrite itself all the time.

In fact, all the files are on the disc for it to auto-load and then to work correctly, but it won't, unless you do the following:

Format a fresh disc, and using PIP (not DISCKIT) copy all the files to the new disc. On a PCW8256, this means putting your CP/M disc in the drive and typing PIP [RETURN]. You get an asterisk prompt, so now put the HitchHiker master disc in, and type `B:=A:*.*`.

The drive will whirr, and you will be periodically prompted to 'Insert disc for drive B' and 'Insert disc for drive A'. Whenever you are asked to insert disc B, put your newly formatted disc in the drive, and for disc A put your HitchHiker master disc in. Finally, when the asterisk prompt returns, press [RETURN].

For 8512 owners, start PIP but this time put the Guide master disc in the lower drive, your new disc in the upper drive, and then type `A:=B:*.*`. No disc swapping is needed.

Now you have an auto-booting Guide disc. Reset the machine and insert the disc in drive A, and the game will start correctly without any screen overwriting.

Chas Nicholson, Woking

Moving and copying program lines

Although BASIC provides no function to move or copy program lines to another area of the program, it is possible to do this with the EDIT command. The same technique can also be used just to change the line number if mistyped at first.

Suppose you have just typed in line number 100, and you want to copy it to line 110. Type

```
EDIT 100
```

[RETURN], and line 100 comes up on the screen. Now use the cursor and delete keys in the normal way to edit the line number to read 110 instead. Press [RETURN], and if you list the program you will see that line 100 has been copied to line 110. This is very handy if you are entering a long series of similar program lines, perhaps mathematical calculations where only a minus sign varies from line to line.

If you wanted to *move* line 100 to line 110 instead of copying it, you can now type

```
100 [RETURN]
```

which deletes the original line 100 for you. Obviously, this process of moving a line is just the same as changing the number on a mistyped line without having to retype the whole thing.

David Gray, Wisbech, and others

A free typeface

For academics and others who need to produce miniscule footnotes in documents, there is a sneaky way of getting a small typeface for them.

The secret is to print footnotes in 17 pitch text and subscript mode. For LocoScript users this means inserting the codes (⊞ Pitch17)(⊞ SuB) before the text in question, and (⊟ Pitch)(⊟ SuB) afterwards.

In CP/M, you can get the same effect by sending the dreaded 'escape codes' to the printer. Type [ALT]P to start echoing text to the printer, then press [EXIT] followed by [ALT]+[SHIFT]+0 (the letter 0, not the numeral 0). This gets you into condensed (17 pitch) text, so then type [EXIT] followed by S and 1 (digit, not letter this time) to get subscript text too. When you've finished printing in small type, do a printer reset to get back to normal.

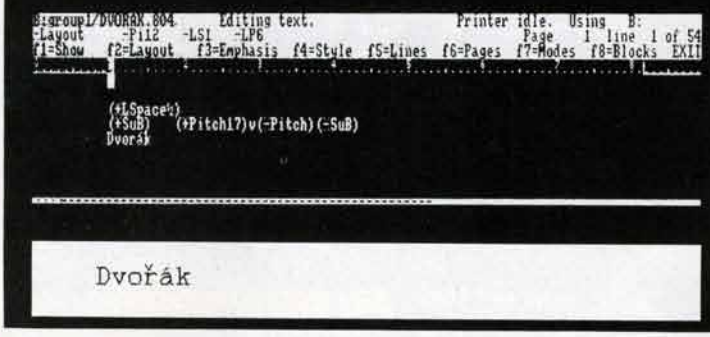
IS Duncan, Peebles

```
                    DUNCAN MINITYPE

    I think that I have unwittingly unearthed another type size
which was never acknowledged to be there.  It would be very goo
liberally sprinkle footnotes about their pages.

    In an attempt to find alternative typestyles and sizes when
CP/M, without the nausea of going into Basic and typing horribl
"LPRINT CHR$(27);CHR$(15);", I discovered how to manipulate esc
CP/M and these are the results:-
```

Czechmate

Following the recent spate of correspondence in the letters pages over getting foreign accents out of LocoScript, you might be interested to see a way of printing out the Czech composer Dvorak's name correctly.

The accent on the 'r' is a subscript, 17 pitch lower case 'v' on the line above the 'r', with the line spacing set to 1/2. It might get a *little* tedious if you use it regularly!



Enveloping the truth

The PCW printer is not very good at printing on thick paper – 100 grams seems to be about the limit – and envelopes are particularly troublesome. However, with traditional, cheap 9x4 envelopes the real Hi-Tech answer is: 'let your fingers do the helping!'

Place the envelope in the feeding position, and as you operate the bail-bar gently push down on the envelope to help it round the roller. Reset the lever, straighten the envelope as necessary, and then start to print. While printing the address, gently pull up on the envelope to help the roller feed each line as it comes out. It works every time.

IT Fynan, Hedge End

Copying LocoScript discs

If you have recently upgraded your PCW8256 to an 8512, you may well want to copy all the files currently on a CF-2 format disc to the larger CF-2DD format for the new double density disc drive. Four sides of drive A to one DD disc – great! But what a drag doing it with LocoScript's [f3] copy. DISCKIT can't copy a single to a double density disc, and using PIP is difficult and laborious on LocoScript discs.

You might like to assemble the following short program which auto-loads and will transfer or update all groups of LocoScript documents onto the same groups in drive B. Finally it displays a complete alphabetical list of the B disc directory.

First, using DISCKIT, format two discs, one in drive A and one in B. Then reset the computer ([SHIFT]+[EXTRA]+[EXIT]) and boot up LocoScript. Turn the disc over (to the CP/M side), press [f1], and copy the following files to the M disc:

```
J14CPM3.EMS
PIP.COM
SUBMIT.COM
DIR.COM
```

Insert the newly formatted single density disc back into the A drive and copy the four files back to group 0.

Now you must Create two new files, also in group 0. The first is called BU.SRC ('Back-Up Source Code'). Erase the template ([CUT], [PAGE], [CUT]), and type the following with a [RETURN] at the end of each line:

```
PIP
<B:[G0]=A:*.*[G0]
<B:[G1]=A:*.*[G1]
<B:[G2]=A:*.*[G2]
<B:[G3]=A:*.*[G3]
<B:[G4]=A:*.*[G4]
<B:[G5]=A:*.*[G5]
<B:[G6]=A:*.*[G6]
<B:[G7]=A:*.*[G7]
<
DIR B: [USER=ALL]
```

Then [EXIT] and select Finish Editing. On the Disc Management Screen, select [f7] (Modes) and Make ASCII file (choose the 'Simple text file' option). When asked for a group and name for the result, put it in group 0 with the name BU.SUB

The second file to create is called BOOT.SRC ('Boot-Up Source code'). Again remove the template part and type in

```
PIP
<M:=*.EMS
<M:=PIP.COM
<M:=DIR.COM
<M:=SUBMIT.COM
<M:=BU.SUB
<
M:
```

This time after [EXIT] etc. make a new ASCII file from BOOT.SRC in group 0 with the name PROFILE.SUB

Now to use it. Make sure the new single density disc is in drive A and reset the PCW with [SHIFT]+[EXTRA]+[EXIT]. It goes into CP/M, goes through its doings and ends up with the prompt 'M>'.

Change the discs for your LocoScript single-density disc in drive A, and the newly formatted double density disc in drive B. Type SUBMIT BU [RETURN] and watch it all happen. At the end, a directory of all the files comes up with how much space you have used.. If you want to add the contents of another A drive disc onto the same B disc, put the next disc in drive A and type SUBMIT BU again.

If things don't work, you have made a typing error in one of the two files. Go back into LocoScript, erase the existing .SUB files, amend the .SRC files and redo the ASCII file making.

Note that this process does not copy Limbo files. To copy them too, add another 8 lines to BU.SRC with G8 to G15 in the square brackets.

BJ Paterson, Leigh-on-Sea

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LOCOSPELL (Soft 07070)

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LOCOMAIL *(Soft 07069)* ☐ LOCOSPELL *(Soft 07070)* ☐

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THE GOOD SOFTWARE FILE

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Word-processing software, Games and Accounts/ Payroll programs to face the ultimate test. We've set out to cover every piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

As well as a brief summary of what they do, the main Plus and Minus points for each program are listed. Those we think are particularly noteworthy have an eliptical flash on them ... have fun window shopping!

ACCOUNTS • PAYROLL

Money Manager
£24.95 • Connect Systems Ltd • 01-743 9792

A personal accounts package, which might at a pinch serve a fledgeling small business. It acts as a daily diary, over 12 months, recording all incomings and outgoings between up to 9 accounts. Transactions can be given codes to group like ones together, and simple reports can ber printed

PLUSES • MINUSES

- ⊞ Fairly simple menu and screen entry of data
- ⊞ Standing orders can be defined for each month
- ⊞ Detailed and summary statements can be printed out
- ⊞ VAT reports can be separated out
- ⊟ The 24-page manual does not properly explain the pacjage's features
- ⊟ The statement format is not very flexible
- ⊟ It's written in BASIC, and is slow at statement preparation
- ⊟ Transfers between accounts are not cross-referenced

Sagesoft Accounts
£99.00 • Sagesoft • 091-284 7077

An integrated accounts package consisting of purchase, sales and nominal ledgers. For another £50 you can buy Accounts Plus which also has invoicing and stock control. The package is aimed at small companies with the emphasis on ease of setting up. But there are a number of limitations — in particular the package cannot cope too easily with rapidly increasing numbers of customers and suppliers.

PLUSES • MINUSES

- ⊞ Clean, tidy and logical screen layouts and menus
- ⊞ Easy to set up and use with excellent documentation
- ⊞ Good audit trails and VAT reports
- ⊞ Can produce formatted trial balances
- ⊟ Restrictive account numbering system
- ⊟ Small batch sizes
- ⊟ Only single Nominal ledger and VAT analysis per item
- ⊟ Does not cater for settlement discounts
- ⊟ Won't print remittance advice slips

Compact Accounts
£199.99 • Compact Software Ltd • 0306 887373

VERSATILE!

Another very large integrated package supplied on several discs and consisting of sales, purchase and nominal ledger together with invoicing. The package is available on much larger micros, and since the format in which data is produced is the same as on PCWs, the system is particularly suitable for users planning to upgrade their hardware at a later date. The programs' anti-piracy system means you have to use the original discs in the A drive. This means the system is not very suitable for use on an 8256.

PLUSES • MINUSES

- ⊞ Audit trails are an auditor's dream.
- ⊞ Includes a facility to allow data to be used in WordStar, Multiplan or SuperCalc 2.
- ⊞ Superb prepayment facility.
- ⊞ Can run a number of companies separately.
- ⊞ Easily transported to bigger computers.
- ⊟ Lots of disc swapping necessary.
- ⊟ Can be slow to use — it runs in Mallard Basic.
- ⊟ A couple of mildly annoying quirks in cash allocation routine and account code system.

Camsoft PSIL
£149.95 • Cambrian Software • 0766 831878

GOOD FOR SMALL Co.

Consists of five integrated packages: Sales, purchase and nominal ledgers, invoicing and stock control. In terms of sophistication it falls somewhere between the Sagesoft package and the larger systems from MAP and Compact. But it's easier to run than the larger packages since all the software can be squeezed into the M drive. Good package for a small company.

PLUSES • MINUSES

- ⊞ Comes installed for PCWs and can be run efficiently by 8256 or 8512.
- ⊞ No need for pre-printed stationery.
- ⊞ Excellent sort and search facilities.
- ⊞ Invoices shown on screen as you create them.
- ⊟ Constant need to input full five-digit account codes.
- ⊟ No final accounts reports available on nominal ledger.
- ⊟ No facility to run the ledgers in different accounting periods.

M.A.P. Accounts
£149.00 • MAP Computer Systems • 061-624 5662/3

POWERFUL!

This is a very powerful package moved onto the PCW at a fraction of its cost on larger micros. The size makes it a little cumbersome to use, but apart from that there are very few significant problems. The integrated suite includes the same five modules as Camsoft, but they are supplied on four sides of disc, making it effectively impossible for the software to be run as an integrated system on an unexpanded 8256.

PLUSES • MINUSES

- ⊞ A very comprehensive and professional package
- ⊞ Very good audit trails.
- ⊞ It's possible to run the sales and purchase ledgers over a different time period from the nominal.

⊞ Facility for handling prepayments and accruals
⊞ Able to print full management accounts.
⊟ The size of the programs means lots of disc swapping.
⊟ All normal responses need to be in upper case.

Small Business Accounts Made Simple

SMALL TRADERS BEST BUY

£99.95 • Micro Simplex • 0625 615375

An accounts and VAT system specially designed for small businesses. Uses a special system of trading weeks and quarters, and links in bank transactions etc.

PLUSES • MINUSES

⊞ Uses M drive to speed operation
⊞ Comprehensive, easy-to-follow manual
⊞ Handles special retailer VAT schemes
⊞ Easy to use menus
⊞ Very good audit trails
⊞ Facility to provide simple profit and loss figures
⊟ Use of accounting weeks makes it rather rigid
⊟ Only suitable for simple cash trades

MAP Payroll

GOODVALUE

£49.00 • MAP Computer Systems • 061-624 5662

PLUSES • MINUSES

⊞ Can amend and re-run at any stage (even after printing payslips)
⊞ Cash analysis is broken down into departments
⊞ System prevents re-use or amendment of leavers
⊞ Facility to hold up to 40 standard hourly and weekly wage rates
⊟ No SSP calculation facility (although there is provision to record amounts paid)
⊟ Programs necessitate a lot of disc swapping
⊟ Automatic amendment of tax code changes does not print a record of alterations made

Camsoft Payroll

SIMPLE AND FLEXIBLE

£49.95 • Cambrian Software • 0766 831878

PLUSES • MINUSES

⊞ Full payslip displayed on screen and any item can be amended immediately -- when accepted the payslip is printed at once with an optional file copy
⊞ Facility for freehand narrative on any payslip
⊞ Uses M drive for programs to speed operation
⊞ Built in on-screen help facility
⊞ Selective search and sort routine for outout to screen, printer or disc
⊞ Uses alphanumeric employee codes
⊟ Screen menus somewhat untidy and sometimes difficult to follow
⊟ No listing of cheques

Compact Payroll

£99.95 • Compact Software ltd • 0306 887373

PLUSES • MINUSES

⊞ Supplied with test data
⊞ Good facility to change employees tax codes following budget
⊞ Can run payroll for several companies
⊞ Same program available for PC compatibles, and the data is transportable
⊟ Must be run from the master discs
⊟ Programs spread over two side of a disc and run in BASIC
⊟ Needs use of data input form and calculation of a check digit for each employee processed
⊟ Once payslips are printed there is no chance of changing anything
⊟ Most expensive payroll program

Sagesoft Popular Payroll

£69.95 • Sagesoft • 091-284 7077

PLUSES • MINUSES

⊞ Any or all employees payroll can be rerun at any stage up to final update
⊞ Full pay history available for all employees and leavers
⊞ Calculates average pay for holidays etc
⊞ Very easy to install
⊟ Limited number of additions/deductions
⊟ Doesn't print a list of cheques
⊟ No analysis of additions/deductions

Colleen Payroll

£29.95 • Colleen Ltd • 0443 434846

PLUSES • MINUSES

⊞ Comprehensive employee details
⊞ Calculates wages rates from annual total
⊞ Shows payslip on screen while creating
⊞ Complete with good report generator
⊟ Runs in BASIC and menu selections involve a lot of responses
⊟ Comes with Tax and NI details blank with advice to look up details!
⊟ Generally very complicated to implement
⊟ Attempts to amend individual emplyees' pay after an automatic run (as advised in the manual) caused a program crash

WORD PROCESSING

The PCW already comes bundled with a free word processor, LocoScript, so you might not think of buying another one as a priority. In fact, whatever you may have read in magazines, LocoScript is a pretty good word processor and you won't find many editing and layout functions that it doesn't have. Its principal disadvantage is speed – to move around a document of more than a couple of pages is like running through quick-setting cement.

So the main argument for change is to make life easier if you are regularly editing long documents (5 pages and over). Once you've decided to take the plunge you will find there are other advantages to be had. For one, you often get a spelling checker thrown in free – look for one which allows its dictionary to be modified so you can include non-American spellings.

Many other word processors have a built in "mail merger" program. This is a way of doing bulk mailshots; you store your address list in a data file, and write a letter with labelled gaps where you want the names and addresses to go. Then, when you print, the letter comes out once for each address, with the the information in its correct place.

One thing's for sure, whatever word processor you buy it will be totally different to operate from LocoScript. The PCW keyboard is custom built to run LocoScript, so if you change you will have to get used to some arcane choices of keys to do even simple operations. Also, you won't be able (very easily) to use all the printer styles that you can from LocoScript, although there will be enough to get by with.

LocoSpell

A MUST FOR LOCOSCRIPTERS

£39.95 • Locomotive/Amsoft • See special offers

The ultimate spelling checker for LocoScript users. It is run as a simple menu choice while you are editing a document normally, and you can check either an entire document or only a paragraph. When it finds an error, it suggests a correction for you. Runs reasonably fast, given LocoScript's inherent sloth in the first place.

PLUSES • MINUSES

⊞ Runs totally from within LocoScript
⊞ Can do small sections of a file
⊞ Suggests alternatives for misspelled words
⊞ Reformats the text as it makes corrections
⊞ Provides the much-missed LocoScript word counter
⊟ Can't *remove* spellings you don't like (eg. -ize) from the dictionary
⊟ The manual gets bogged down in confusing details sometimes
⊟ Slow at scrolling the dictionary window looking for correct spellings

Prospell

BEST BUY!

£29.95 • Arnor • 01-684 8009

This is a stand-alone spelling checker suitable for use with almost all word processors that run on the PCW machines. It can read LocoScript, WordStar and plain ASCII files. It flags up each wrong word as it finds it, and allows you to make corrections directly, view the context, change the dictionary etc. Speed is not bad.

PLUSES • MINUSES

⊞ Can check LocoScript and WordStar documents directly
⊞ Can display the context of a word to remind you what it should be
⊞ Can edit misspellings directly from Prospell
⊞ Can update the dictionary interactively
⊞ It has anagram and crossworld solvers too
⊟ It processed files or more than 15k or so in sepoarate sections
⊟ You can't copy the dictionary to the M drive for speed

Teach Yourself LocoScript

£14.95 • LINC • 0273 776576

Another disc of teach-yourself lessons for LocoScript. Better written and organised than LernLoco. The advantage over a book is that you can try things out as soon as you read about them, and see the effect on the text you are reading.

PLUSES • MINUSES

⊞ Well organised lessons for you to browse through as you like
⊞ Well-pitched style of writing does not talk down to you

AMSTRAD PCW 8256/8512 and CPC6128

A PROCESS O

WORD PROCESSING:

Are you 100% delighted with your Word Processor? Have you got any choice?

Well until now, perhaps not, but read on because we have some interesting facts for you.
We have tested some of the more popular word processors for the Amstrad PCW machines and we have presented a fairly comprehensive listing of our findings.
Use this information freely, before you decide on your next Word Processor.

A Comparison of Amstrad Word Processors

Benchmark timings

All tests were carried out on a standard 1817 word document. Tests 7 to 10 were carried out on a standard 262 word paragraph. All times are in seconds.

	Protext	Loco-script	Tasword 8000	Newword	Pocket Wordstar Deluxe
Version:	2.00	1.20	1.00	2.17	3.05
Computer:	PCW8256	PCW8256	PCW8256	PCW8256	PCW8256
1. Load document	6	12	8	18	10
2. Save document	7	84	19	13	19
3. Merge document to middle of itself	5	269	11	21	11
4. Move cursor from start to end	0.5	34	6	3	4
5. Move cursor from end to start	0.1	15	3	4	3
6. Replace 'the' with 'THE' 205 times	5	128	297	73	208
7. Format paragraph	1	10	12	6	6
8. Move paragraph to start	0.2	42	13	9	9
9. Move paragraph to end	1	80	13	9	4
10. Delete paragraph	0.3	19	3	5	4

"I am stunned by the speed at which Protext performs the text operation, there is nothing like it on the Amstrad" . . .*AMTIX MAGAZINE*

"Protext can thrash any 8 bit Word Processor for speed and can even cross swords with some 16 bit programs for power" . . .*POPULAR COMPUTING WEEKLY.*

PROTEXT WORD PROCESSOR

Q: So why is Protext so much faster than the competition?

A: Protext is the "state of the art" on the Amstrad computers. After two years of development, it is now widely recognised as the "new standard" by which other programs will be judged. Protext is not "just another conversion" from other computers but is a complete word processing system designed and written specifically for the Amstrad range. Protext makes full use of the available features on your machine, taking it further than ever before in many respects, by increasing the speed, power and performance, which until now, has not been thought possible. Protext is a fully integrated package complete with extensive mail-merge routines, spelling checker and disc utility programs.

But speed is not everything, so to be fair we should also show a summary of the main features. . . .

LocoScript is a trademark of Locomotive software Ltd, Tasword 8000 is a trademark of Tasman Software Ltd, NewWord

F ELIMINATION

THE FACTS EXPOSED

Feature comparison

FEATURES	Protext	Loco-script	Tasword 8000	Newword	Pocket Wordstar Deluxe
What you see is what you get	y	y	y	y	y
Works with any printer	y	-	y	y	y
Unlimited file size	y	y	-	y	y
Two file editing	y	-	-	-	-
Auto re-format	y	y	y	-	-
Layout commands stored in text	y	y	-	y	y
Spelling checker	y	-	-	y	y
Spell check from within WP	y	-	-	-	y
Find/anagram options	y	-	-	y	-
Background printing	y	y	-	-	y
Insert or overtype	y	-	y	y	y
Delete line command	y	-	y	y	y
On screen help	y	y	y	y	y
Dynamic screen update	y	y	-	-	-
Headers and footers	y	y	y	y	y
- different even and odd	y	y	-	y	y
Soft hyphens	y	y	-	y	y
Soft spaces/returns	y	y	-	y	y
Non break space	y	y	-	y	y
Decimal tabs	y	y	y	y	y
Format whole document	y	-	-	-	-
Page break indication	y	y	y	y	y
Page/line number display	y	y	y	y	y
Column manipulation	y	-	-	y	y
Column replace mode	y	-	-	y	-
Multiple block buffers	-	y	-	-	-
Undelete block	y	-	-	y	-
Undelete line	y	-	y	y	-
Save block	y	y	-	y	y
Calculator	y	-	-	-	-
Print multiple copies	y	-	y	y	y
Print selected pages	y	y	-	y	y
Print block	y	-	y	-	-
Print to screen	y	-	-	y	y
Typewriter mode	y	y	-	-	-
Change printer at any time	y	-	-	y	y
Embedded printer codes	y	y	y	y	y
Print translated characters	y	-	y	-	-
Turn off printer code display	y	y	-	y	y
Display returns/tabs	y	y	-	-	-

FEATURES	Protext	Loco-script	Tasword 8000	Newword	Pocket Wordstar Deluxe
On screen underlining	-	y	-	-	-
Built in Foreign characters	y	y	-	-	-
Separate accents	y	y	-	-	-
Catalogue files	y	y	y	y	y
Delete file	y	y	y	y	y
Rename file	y	y	y	y	y
Copy file	y	y	-	y	y
Format disc	y	-	-	-	-
Type disc file	y	-	y	-	-
Auto file backup	y	y	y	y	y
Find/replace - wildcards	y	-	-	y	y
- selective or all	y	y	y	y	y
- ignore case or not	y	-	y	y	y
- search for any string	y	y	-	y	y
- search for control codes	y	-	-	y	y
- find nth occurrence	y	-	-	-	y
Mail merge - data from file	y	-	y	y	y
- data from keyboard	y	-	y	y	y
- re-usable variables	y	-	-	y	y
- string/substring expressions	y	-	-	-	-
- numeric arithmetic	y	-	-	y	-
- polymorphic operators	y	-	-	-	-
- multiple data files	y	-	-	-	-
Conditional printing	y	-	y	y	y
- nested	y	-	-	y	y
Repeat/until loops	y	-	-	-	-
Insert file whilst printing	y	-	-	y	y
Format whilst printing	y	-	-	y	y
Auto widow/orphan elimination	-	y	-	-	-
Keep lines together	-	y	-	-	-
Microspacing	y	y	-	y	y
Proportional spacing	y	y	-	-	-
Built in word count	y	-	y	-	-
Character count	y	-	y	-	y
Place markers	y	y	y	-	y
Comments within text	y	-	-	y	y
Program editing mode	y	-	-	y	y
Create ASCII file	y	y	y	y	y
File conversion utility	y	-	-	-	-
User definable keys/phrases	y	y	y	-	-

Arnor Ltd. September 1986

PROTEXT: THE PROFESSIONALS CHOICE

"The best Amstrad WP at any price" . . . *YOUR COMPUTER*

"They took their time with it and it was worth the wait" . . . *AMSTRAD COMPUTER USER*

"Don't miss it - it is superb". . . *POPULAR COMPUTING WEEKLY*

WHY USE ANYTHING ELSE ?

Protext for the Amstrad
PCW 8256/8512 and CPC6128 £79.95

Special price available for Prospell users
Phone for details

Access VISA

Arnor Ltd. (Dept.RBEA)
118 Whitehorse Road,
Croydon, Surrey
CRO 2JF
24 hr 01-684-8009

Amstrad CPC versions available on disc or ROM
Phone for details and FREE catalogue. Dealer enquiries welcome.
Protext is available from Arnor Limited. We do not stock the others!

a trademark of NewStar Software Inc, Pocket Wordstar is a registered trademark of MicroPro International Corporation

ADD A 51/4" DRIVE TO YOUR 8256

The uniface allows you to use any standard 5 1/4" disc drive as a second drive on your 8256.

This easy to fit device comes complete with full easy to follow clear instructions and Utility Software on disc.

Available now at only **£49.95** or **£199.95** with an 80 track double sided disc drive.

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SERIOUS WRITERS ONLY!

If you are writing a **book, thesis, scientific treatise, report**, or any other text that requires an accurate index, our program AnsibleIndex is what you need. It is the *only* indexing software available for LocoScript.

Here are the main features:

- Up to **1,500 different entries**
- Automatic **alphabetization**
- Exact **page numbers**
- Lists **words, phrases** and **inverted phrases**
- No special commands to learn...if you use LocoScript, you can compile an index
- Full **page proof compatibility**: optional dummy format, plus reorganization to match printed book
- **AnsibleCheck** included - see below
- Price: **£49.50** (incl. VAT & carriage)

We also supply the only trouble-free LocoScript word counter, **AnsibleCheck:**

- Counts words as *words* (no estimates)
- Simple to use...one command runs the program , automatically
- Works with ordinary Locoscript files...no special preparation
- Also seeks (and shows in context) any words that have been repeated
- PRICE: **£19.50** (incl. VAT & carriage)

Both packages include a special "extra": the dreaded **GREASE,** scourge of writers everywhere.... A comprehensive manual in plain language (author: 8000 PLUS columnist David Langford!) is included with both packages.

Ask for our brochure, or order direct, payment enclosed:

ANSIBLE INFORMATION

(Dept. 8002) • 94 London Road • Reading • Berkshire • RG1 5AU
Tel: 0672 62576

BARCLAYCARD VISA Access

THE GOOD SOFTWARE FILE

WORD-PROCESSORS

LocoMail
£39.95 • Locomotive Software/Amsoft • 0277 230222 — *BEST BUY!*

As a mailmerger for LocoScript documents, it's difficult to see how anything could be much better than this. It runs directly from LocoScript, so you never have to use CP/M, and can process any LocoScript commands. Has many advanced features, and is highly recommended for all LocoScript users.

PLUSES • MINUSES
- ⊞ You don't have to run it from CP/M
- ⊞ Can print any LocoScript text formatting commands
- ⊞ Can automatically rejustify paragraphs after insertion
- ⊞ Can insert numeric calculations into letters
- ⊞ Can read data from non-LocoScript (ie. ASCII) files
- ⊞ Large manual, with example files on disc
- ⊟ No way to sort and filter addresses before a print run

LocoScript
bundled free with PCW machines • Locomotive Software — *INCLUDED FOR COMPARISON*

This is the standard PCW word processor. It makes by far the best use of the hardware of any word processor, and can do true proportional spaced printing, so why should you buy anything else? Well, the menu system is a little obscure at first, and you will need to use the manual a lot. Painfully slow with large documents, but if all you will ever do is 1 or 2 page letters, you would be silly to buy another word processor. A new version is promised soon to overcome most of the 'minuses'.

PLUSES • MINUSES
- ⊞ It's free!
- ⊞ Uses the printer and keyboard very well
- ⊞ Copes well with most editing functions, including block moves
- ⊞ Plenty of powerful features such as templates and phrases
- ⊟ Very slow with long (3 pages or more) documents
- ⊟ Bad at creating non-document files (eg. program text), and interacting with CP/M
- ⊟ No mail merge, spell checker or word counter as standard
- ⊟ Documentation needs better organising

Pocket WordStar
£49.95 • MicroPro/Davis Rubin Associates • 0386 841181 — *IT'S WORDSTAR!*

To many business users, word processing means using WordStar. Almost every feature you could need in a text processor is here and despite the title this "Pocket" version has all the features of the original. It has also been customised to use the PCW's full screen width and some of the keypad keys. However the program can be difficult to learn and some of the margin and formatting commands are cumbersome. Efficient and proven, but it is now showing its age and there are alternatives unless you are committed to WordStar already. For £20 extra, you can get the De Luxe version with spelling checker.

PLUSES • MINUSES
- ⊞ Probably the world's most widely used word-processor
- ⊞ Documentation is complex but well structured
- ⊞ Includes a mail merge utility
- ⊞ The keystroke commands are fully described on on-screen menus
- ⊞ You can save your own favourite customised version
- ⊟ Doesn't make full use of the PCW keyboard and printer
- ⊟ Page and margin formatting commands are awkward to use

Dataflow III and Mailflow III
£49.95 • Micro Power • 0532 458800/434006

Designed as an integrated mailmerge package, it is awkward to use although can achieve good quality results. You have to convert LocoScript files to ASCII, which is annoying. LocoScript users would be better off with LocoMail or Qmail, while other wordprocessors usually have their own mail merger anyway.

PLUSES • MINUSES
- ⊞ Can put bold, underlining etc into all wordprocessed files
- ⊞ Can presort and preselect records for merging
- ⊞ Automatically rejustifies text paragraphs
- ⊟ Doesn't read unconverted LocoScript documents
- ⊟ For an 'integrated' program, it runs in too many different stages
- ⊟ The database section is longwinded to use

NewWord
£69.00 • NewStar Software Ltd • 0277 220573 — *POWERFUL AND PROVEN*

NewWord sets out to exploit the WordStar market by doing just the same job but better. It uses much the same key commands as WordStar, and will even edit WordStar document files. It comes with a spelling checker. On-screen help is much better than WordStar, but the commands, being restricted by compatibility, are still as obscure.

PLUSES • MINUSES
- ⊞ Can do everything WordStar can, and even edit WordStar files
- ⊞ Makes good use of the PCW screen -- actually shows underlining and bold text.
- ⊞ Clearer help messages than WordStar and good tutorial manual.
- ⊞ Has full reformatting of text within its mail merge
- ⊞ Good spelling checker as part of the price
- ⊞ Can un-erase words and lines -- useful for moving them around
- ⊟ Weak on use of the keypad and printer support

⊟ Many of WordStar's disadvantages too, like formatting troubles and obscure commands.

Tasword 8000
£24.95 • Tasman Software • 0532 438301

An established word processor that is well tried and tested on Amstrad's CPC machines. Tasword's strength is its printer handling — it provides a host of customisation options for different printers, and a variety of print fonts too. But if you enjoy moving blocks of text around to see how they look in different places, Tasword will let you down for speed.

PLUSES • MINUSES
- ⊞ Clear, well structured on-screen help menus
- ⊞ A variety of printer controls and fonts available
- ⊞ Includes a reasonable mail merge program
- ⊞ Moving around big files is fast
- ⊞ You can easily create and save a customised version of the program
- ⊟ Doesn't treat [RETURN] as a character — it can lose paragraph endings.
- ⊟ Reformatting text blocks is quirky
- ⊟ Documentation is a bit brief
- ⊟ The search and replace function is limited and very slow

Tas-spell
£16.50 • Tasman Software • 0532 438301

If you are a dedicated Tasword user, this could be interesting, but otherwise it isn't a very good spelling checker. Very slow, can't read LocoScript or WordStar files. Still, cheap though.

PLUSES • MINUSES
- ⊞ Runs from within Tasword
- ⊞ Cheap
- ⊟ Very slow -- around 200 words a minute
- ⊟ Only reads simple ASCII (ie. Tasword) files

AnsibleCheck
£19.50 • Ansible Information • 0672 62576

Counts the words in LocoScript files, and also does some elementray proof-reading (checks for doubled up words like 'Paris in the the spring'). Effective, but £20 for a wordcounter?

PLUSES • MINUSES
- ⊞ Works quickly and reliably
- ⊟ Costs £20

AnsibleIndeX
£49.50 • Ansible Information • 0672 62576

AUTHORS' BEST BUY

Takes a LocoScript file and compiles an alphabetical index with page numbers from all the words marked. You mark the words to be indexed by using LocoScript's (⊞RV) code. The price includes the AnsibleCheck word counter program too.

PLUSES • MINUSES
- ⊞ LocoScript documents don't have to be converted to ASCII
- ⊞ Can 'invert' phrases, eg. 'Smith, Fred' rather than 'Fred Smith'
- ⊞ Can produce a single index combining several different LocoScript files
- ⊞ Readable and comprehensive manual
- ⊟ The output index is not a LocoScript document until you convert it
- ⊟ You can only index words which appear literally, not general topics
- ⊟ The price will deter casual users

LernLoco
£16.95 • Minerva Systems • 0392 37756

A set of LocoScript files on a disc which are designed to be a step-by-step guide to using LocoScript. As you go through the lessons in turn, you print them out to form your own manual.

PLUSES • MINUSES
- ⊞ Covers most LocoScript's features in well organised lessons
- ⊞ Contains many useful tips and techniques
- ⊟ Style of writing is patronising
- ⊟ It is annoying to have to print out the documents as you go

Qmail
£29.95 • Proteus Computing • 01-748 2302

GREAT VALUE

A mail merger specifically designed to work with LocoScript files. It scores over LocoMail in that it has a simple but effective database system to allow you to choose your target for a mialshot by marking them with 'attributes' and selecting -- eg. only those customers who bought your product X.

PLUSES • MINUSES
- ⊞ Read LocoScript files unconverted
- ⊞ Prints all LocoScript commands properly
- ⊞ Well-designed database is ideal for mailmerging
- ⊞ Database 'attributes' provide an advanced selection capability
- ⊟ Manual is lackind in examples
- ⊟ No numeric calculation capability
- ⊟ Doesn't read non-LocoScript files

The UPGRADE

GUARANTEE EXPIRED? Now is the time to Upgrade your PCW 8256 to 8512 specification

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Saxon Computing

Flexi Collection for PC 1512 & IBM

FlexiFile - one of only two databases rated as good value by 8000 Plus magazine, this is a fast database offering calculations, reports, filtering, indexing, rebuild, macros & context sensitive help.All new manual includes full tutorial which is also on disk.

FlexiWrite - a Wordstar work alike with a friendly face. Easy to use, has mailmerge and can IMPORT GRAPHICS into your documents.Full manual included.

FlexiLabel - total control over mailing & goods labels up to 5 across. Can use data from FlexiFile, FlexiWrite & other databases.

FlexiCalc - a spreadsheet with graphics.

Lock-It protects your files using sophisticated encryption and passwords.

Micro Collection for PCW8256/8512

Micro Collection comprises MicroFile, MicroWord, FlexiLabel, MicroSpread and Lock-It. Similar specification to Flexi programs but for CPM Plus.

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NEW FEATURES ON CHIBASE

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- Improved manual with index

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CHIBASE is used by **RESEARCHERS INDUSTRIALISTS STUDENTS TEACHERS** and others
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- Single key, mostly mnemonic, database commands
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- On-Screen highlighting to indicate 'key' words
- Word processor compatible

The manual includes a tutorial introduction and full explanation of all commands

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GAMES

No one could have predicted the remarkable way in which games software has taken off on the PCWs. On the face of it, the machine is not ideally built for games, but software houses have proved that impressive results can be obtained on it, and not just with text-based games – your 8000 is capable of amazing animation!

The entertainment software available divides into three main categories, at least one of which may appeal to you, even if you don't think at present that computer games are your thing.

ADVENTURES are probably the most common on the PCW. These are defined (by us anyway) as games controlled by *typed keyboard commands.* The program describes a scenario and you, the player have to respond by typing things like: GET SWORD or POLISH ORB WITH THE VELVET CLOTH. These programs vary greatly in their ability to recognise and respond to your instructions, and at their best are Some of them include pictures of the various game locations, but these tend to play little part in actual game-play.

ARCADE GAMES are those in which an animated character is moved onscreen by *direct keyboard (or joystick) control.* You press a key for 'Left' and the character goes left. Arcade games with plenty of different locations are sometimes called ARCADE ADVENTURES.

Finally there are SIMULATIONS, a range of programs which covers anything from chess to flying and whose appeal will depend greatly on your interest in whatever is being simulated.

The Archers
Mosaic/WHS Distributors • 0533 551196

SIMPLE AND HUMOROUS

Even if you aren't a fan of the radio series, this game has something for you. You are in charge of the script for the Archers, and have to decide the course of the show by answering a set of multiple choice questions. Ratings figures, memos from the DG and summary sackings tell you how you are doing.

PLUSES • MINUSES
⊞ Excellent characterisation
⊞ Crisp, well written text
⊞ Neat graphics add to the atmosphere
⊞ Humour sustained throughout
⊟ The input from the player is minimal
⊟ Lacks challenge -- too easy to complete
⊟ Repetitious in the long term

Nemesis
£15.95 • Advantage Software

A package of four games, comprising the Trial of Arnold Blackwood. Variously, you have to find the errant Lord Erebus, his relatives or his ear trumpet. The attempts at humour are embarrassing, and the four games are generally thin although competently presented and designed.

PLUSES • MINUSES
⊞ A good challenge
⊞ Lots of hints
⊞ Good range of responses
⊟ The humour falls very flat
⊟ Has irritating high-pitched bleeps
⊟ The scenarios are pretty bald

Blackstar
£14.95 • CRL • 01-533 2918

A traditional text adventure with large playing area. Your aim is to enter and explore the mysterious Castle Blackstar and its vast underlying caverns in search of a 'power orb'.

⊞ Large number and variety of locations
⊞ Pleasing traditional fantasy scenario – gleaming swords, strange statues, etc
⊞ Plenty of objects to discover, problems to solve.
⊟ Program's text handling is not particularly sophisticated.
⊟ Unhelpful responses to your commands can become frustrating.

Graham Gooch's Test Cricket
£19.95 • Audiogenic • 0734 303663

The basic game screen shows a view down the wicket from above the bowler's head and features full animation of bowler, batsman and fielders. You can play limited over or full two innings matches, choosing your players from (editable) lists of England and Australia players. There are two playing modes: simulation and arcade – in the

latter you have to time the batsman's shot and bowler's runup yourself.
- ⊞ A good simulation which incorporates most cricket rules including LBWs, run outs, declarations and follow ons.
- ⊞ Attractive animated graphics.
- ⊞ Choice of playing against the (hard-to-beat) computer or another player.
- ⊞ Action uninterrrupted by rain or winter.
- ⊟ Not too much variety in what you have to do.
- ⊟ Doesn't offer much to non-cricket fans.

Mountain Leader
CPC Minehead • 0643 4851

As you might have guessed, you are in charge of a mountain expedition and you have to lead your team to the summit safely. An adventure game with a few screenfulls of info and data too. It's a long game, which needs a good strategic mind, but a bit dull unless you are a dedicated armchair mountaineer.

PLUSES • MINUSES
- ⊞ Fairly realisitc
- ⊞ Good exercise for the grey matter if nothing else
- ⊞ Easy to get into
- ⊞ A worthy challenge
- ⊟ Lacks atmosphere
- ⊟ Requires tenacity
- ⊟ Not really very exciting

Bounder
£13.95 • Gremlin Graphics • 0742 753423

DIFFERENT AND FUN!

A graphics bouncing-ball game. What you have to do is direct a tennis ball across a network of hexagonal slabs, taking care to avoid obstacles, nasties and punctures. Planning a correct route is quite a challenge, and there are an impressive number of locations, screens and features.

PLUSES • MINUSES
- ⊞ Stylish graphics
- ⊞ Nice scrolling action between the 174 screens
- ⊞ Good responsive keyboard and manoeuvrability
- ⊞ Unpretentious and unpredictable
- ⊞ Can be used with a joystick
- ⊟ Slow at totalling bonuses
- ⊟ Too much trial and error involved

Scrabble
£19.95 • 01-727 8070 • Virgin Leisure

PLAYS A MEAN GAME!

Come on, we don't have to explain what Scrabble is, do we? An excellent implementation where the PCW plays you (with up to 4 players), and it has an impressive range of obscure words to draw on. Fine graphics as the board is drawn make for a good game.

PLUSES • MINUSES
- ⊞ Detailed graphics of board and letter tiles
- ⊞ 8 levels of play from obvious to obscure
- ⊞ Numerous playing options
- ⊞ Extensive dictionary
- ⊟ Board cursor is a bit hard to follow
- ⊟ Computer sometimes places letters too quickly

Infocom games
£28.70 or £22.95 • Infocom/Softsel/Audiogenic

CHALLENGING!

Virtually the whole range of Infocom's famous text adventures are now available for the PCWs. From the original Zork series, now several years old, through to modern titles such as Spellbreaker, the programs all offer sophisticated, challenging entertainment of the highest order. If you're new to adventuring you should start with an 'introductory level' program such as Wishbringer. Old hands can tackle an 'expert level' title such as Starcross, Suspended or Spellbreaker.

PLUSES • MINUSES
- ⊞ Renowned for their sophistication in handling and responding to your typed commands.
- ⊞ Superb text descriptions give each game special atmosphere.
- ⊞ Great satisfaction to be had in overcoming numerous problems and deadends.
- ⊞ Lack of graphics means you can fool a casual observer into thinking you're word-processing!
- ⊟ They're not cheap.

Fairlight
£14.95 • The Edge • 01-831 1801

Another fine 3D graphic adventure with similar screen display to Batman. You must explore a castle prison in search of a book which will allow you to escape. Numerous enemies (helmeted guards, trolls, wraiths, etc) must be avoided and puzzles solved by finding the right objects and using them in the right way.
- ⊞ Clear, detailed 3D graphics (but not quite up to *Batman* standards)
- ⊞ Good atmosphere generated by graphics and instructions
- ⊞ Large playing area to explore and map
- ⊞ Wide range of puzzles and objects to solve them
- ⊟ Action slows down considerably with more than one moving character on screen
- ⊟ May be hard to get into at first

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Colossus Chess 4.0

£15.95 • CDS Software • 0302 21134

STRONGEST PLAY!

Tests conducted by 8000 PLUS appear to confirm this program's claim to be the strongest of the chess titles in actual play, although only by a small margin. It actually uses the time you're thinking to continue its planning! The program appears to have all conceivable features including such things as simulating 'blindfold' games.

PLUSES • MINUSES

⊞ Probably the most powerful in play.
⊞ Includes openings library of 3000 moves.
⊞ Numerous features including proper tournament mode and "equality" mode in which the program matches your time.
⊞ Choice of algebraic or cursor key move entry.
⊞ Comes with file of 35 'pre-recorded' games and 19 chess problems.
⊟ Forget the 3D display – the 2D option is much clearer.

Cyrus II Chess

£15.95 • Amsoft • 0277 230222

GREAT GRAPHICS!

This program's outstanding feature is its highly-detailed 3D display – it's stunning. So is the super-smooth (although slow) movement of the pieces. It has numerous other features, though not quite as many as Colossus. In our tests Colossus seemed to play better, but Cyrus II is still likely to beat you, and if you want a package to impress your friends it's probably the best to go for.

PLUSES • MINUSES

⊞ Gorgeous 3D view of board backed up by 2D option.
⊞ Very strong play.
⊞ Numerous frills and features such as the option of taking back a move.
⊞ Easy to use cursor key move entry.
⊟ Usually outplayed by Colossus.
⊟ No option for algebraic move entry.

3D Clock Chess

£15.95 • CP Software

The title refers to the fact that the program's 3D display includes a view of a chess clock complete with buttons and moving hands. A bit of a gimmick, really – both the other programs also keep a check of the time each player takes and include various time control options. The 3D display is prettier than Colossus, but not as nice as Cyrus.

PLUSES • MINUSES

⊞ Tough to beat, even at low levels.
⊞ Attractive 3D display.
⊞ Features include the ability to set any time limit per move for the computer.
⊟ Appears not quite as strong in play as Colossus.
⊟ Some features missing – eg. no option to take back a move after a blunder!
⊟ Move entry is only by algebraic coordinates (e.g. e2e4).
⊟ No 2D display option – the 3D can sometimes be confusing.

Bridge Player III

£19.95 • CP Software

Surprisingly, perhaps, good bridge programs appear to be much harder to create than good chess programs. Most suffer from erratic bidding, poor card play and numerous quirks. Bridge Player III can't entirely escape these criticisms, but as bridge programs on micros go, it's good. The human player plays South, with the computer running the other three hands. It claims not to cheat.

PLUSES • MINUSES

⊞ You can play bridge without first finding three like-minded people.
⊞ Program offers reasonably strong card-play.
⊞ You can specify the strength of your hand for bidding practice.
⊞ The computer keeps the score – no messy sheets of paper.
⊟ Bidding with the computer as both partner and opponent can be quriky and frustrating.
⊟ Overall strength of play is well below that of an average player.
⊟ The instruction leaflet could do with much more detail.

Heroes of Karn

£17.95 • Interceptor Micros • 07356 71145/3711

Traditional adventure game -- you must rescue the four eponymous heroes and make use of their special powers like swordsmanship, magic etc. Some of the puzzles are testing and need quite complex commands. Dedicated adventurers will enjoy it.

PLUSES • MINUSES

⊞ Very long descriptions of where you are (10 lines or more!)
⊞ Some commands are quite sophisticated
⊟ Uninformative responses when you are on the wrong track

The Very Big Cave Adventure

£14.95 • CRL • 01-533 2918

IRREVERENT

An adventure spoof with al the corny jokes and illogicality you would expect -- a rampaging bull who guards a gully seems rather credulous, because he's a gully-bull. The precise object of the game isn't quite clear, but then again, perhaps that doesn't matter. A good fun respite from serious adventuring.

PLUSES • MINUSES

⊞ Off-beat and genuinely amusing
⊞ Refreshingly unpredictable
⊞ Nicely irreverent in tone
⊟ Repetitive and often unhelpful responses
⊟ Scenarios lack detail and atmosphere

Batman

£14.95 • Ocean Software • 061-832 6633

GREAT FUN!

If you think the PCW screen is for text only, this game will make your jaw drop. Its animated 3D graphics are remarkable. The game too is surprisingly sophisticated. Despite the title, there's no fighting involved, just a good deal of brainwork and agile key control. While exploring the vast underground complex you have to negotiate a wide range of hazards and solve brain-twisting puzzles, often to do with manipulating obstacles and turning them to your advantage.. Superb entertainment – there's even a Batman 'tune'!

⊞ State-of-the-art 3D graphics.
⊞ You have the ability to push objects around a location offering scope for ingenious puzzles.
⊞ Conveyor belts, electrified floors and various creatures pose a severe challenge.
⊞ There's enormous variety and depth to the game. You won't get bored...
⊟ ...until you've finally solved it.

Hitch-hiker's Guide to the Galaxy

£28.70 • Infocom/Softsel

HILARIOUS! SUPERB!

In many people's view the best adventure program ever written. Based on the original book/radio show/TV program, it puts you in the same wacky situations forcing you to solve problems of mind-boggling improbability. The program is text only, but sophisticated enough to convince you that Douglas Adams himself is hiding inside your Amstrad.

PLUSES • MINUSES

⊞ Guaranteed more laughs than any other program.
⊞ Solving some of the problems will have you gasping with glee.
⊞ Responses to your commands are almost always intelligent – and witty.
⊞ A very large program – many hours of challenge.
⊞ Better entertainment than the original radio show.
⊟ Liable to keep you from doing other things!

Tomahawk

£19.95 • Digital Integration • 0276 684959

DYNAMIC! CHALLENGING!

The first of the flight simulators on the 8000s, and a corker too. You are at the controls of an Apache helicopter, piloting it on a mission through enemy territory. With impresively detailed animated graphics, you've many hours of flying time to log here.

PLUSES • MINUSES

⊞ Detailed animated graphical display of view from cockpit
⊞ Can be used with a joystick (eg. Cascade *Joycestick*)
⊞ It's a challenge to master the flying controls and shoot at the same time
⊟ Can be difficult to get into for the novice
⊟ Instruction sheet is not very clear

Invaders

£12.95 • Digita • 03954 5059

Are you an ageing hippy who toyed briefly with the original Space Invaders when video games first appeared (and then gave up playing because you were no good)? Then this is for you, it's pure nostalgia -- simple space invaders. Go on, zap those database blues away!

PLUSES • MINUSES

⊞ Simple enough even for managers to play
⊞ Oozes nostalgia for all those 10p's you spent in the pub many years ago
⊟ The sound on the PCW doesn't really make any impact
⊟ The screen movements are not very fluid -- firing on the move is erratic
⊟ Games have moved on a long way since it was designed

NEXT MONTH

The guide continues next month with the categories of DATABASES, COMMUNICATIONS and GRAPHICS. The month after that will cover SPREADSHEETS, UTILITIES and EDUCATIONAL software, and the month after *that* it's back to this month's topics.

Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available at £1.50 each.

Meanwhile, if you are aware of any significant omissions or errors in the File as published, please let us know. We intend to maintain it as THE authoritative guide to PCW software.

CAXTON SOFTWARE

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Here's a rare opportunity for anyone seeking to buy some of the best professional software on the market. We're offering substantial savings on the Caxton range of programs. What is more, you can choose valuable extras to go with your order.

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There's probably no better way of expanding the serious potential of your PCW.

CONDOR 1
Only £87.50 – save over £12!!

This is a heavy-weight piece of software described by Caxton as a database management and reporting system.

In addition to the normal search and sort routines of a database, it offers you the ability to manipulate information in powerful ways. For example it can perform automatic calculations on numerical data that you type in. And by using its 35 built-in commands you can create a database system tailor-made to your needs.

Condor 1 could be used, for example, to create and print invoices from a file of customers. VAT and the invoice totals could be automatically calculated, and the invoices themselves could be sorted in numerical or alphabetical order.

BRAINSTORM
Only £43.75 – save over £6!!

This is the program which generated an entire new program category – it's an *ideas processor*.

Its function is to help you organise your thoughts. Say you're planning a complex function, like writing a detective novel or launching a new range of hand-sewn dolls. *Brainstorm* will allow you to link and structure your ideas in an extremely innovative way.

CARDBOX
Only £49.95 – save over £10!!

As its name suggests, this program offers a very slick replacement for card-filing systems.

You can use it to keep track of customer details, lists of products or even a fact-store for your stamp collection.

First you design the layout of your card – there's great flexibility here. Then, once you've entered the information, you can use the system to search very quickly for what you want to know.

Unlike a manual card file you could search for *any* type of information – for example name, address, membership number, nature of enquiry, whatever.

Since the number of cards the program can handle runs into tens of thousands (disk space permitting), and since it's fast and flexible, you should find it powerful enough for an enormous range of indexing tasks.

This program used to cost hundreds of pounds on other computers, and only last summer was being sold on the PCW for £99.99. This offer is very special indeed.

SCRATCHPAD PLUS
Only £49.95 – save over £10!!

This is a superb spreadsheet program – many would say it's the best available on the PCW machines. Complex calculations ranging from simple financial planning to advanced mathematical analysis can be carried out very quickly. And once your spreadsheet model is created, you can rapidly see the result of varying your original figures.

As well as all the usual spreadsheet functions, *Scratchpad Plus* boasts the ability to handle particularly big files – you're not limited by the working memory, only by the size of your disk.

In addition there's great flexibility over spreadsheet size and the facility for opening windows on several parts of the spreadsheet simultaneously.

Those features, plus the fact that the spreadsheet is specially customised for the PCW keyboard and offers extensive onscreen help, make it a superb choice.

TOUCH'n'GO
Only £19.95 – save over £5!!

Caxton's typing tutor. Its aim is to turn you into a fast touch typist and to give you a good time in the process.

The program has been used widely on other computers at many times the cost and Caxton believe you can get outstanding results within 24 hours. They also say its fun to use, addictive even. Having seen the response to it of a couple of secretaries here at The Old Barn I think we'd agree!

HOW TO ORDER
Just turn two pages and fill in the form. Or dial 0458-74011 and ask for credit card orders.

GREAT GIFTS

Two blank disks and more with every order!

These are the extras you can have when you order Caxton software. For a start EVERY program will be accompanied by TWO BLANK 3" DISKS. So you can immediately backup your new master disk AND have another disk for your own use.

Which other gifts you receive depends on which Caxton products you buy. If your order is over £40 you can choose any ONE of the gifts below. If it's over £80 you can choose any TWO, if it's over £120 you can have all THREE!

EXTRA GIFT 1 – worth £8.95!
A copy of the best-selling book *Mastering the Amstrad PCW 8256/8512* by John Hughes. Covering LocoScript, CP/M and other topics, it's far easier to understand than the manual.

EXTRA GIFT 2 – worth £14.95!
A copy of the remarkable Ocean Software game *Batman*. Explore a huge network of monster-filled rooms in attempting to assemble your Batcraft. Dazzling 3D graphics and animation! Scores of devious puzzles! A great break from word-processing and guaranteed to impress your friends.

EXTRA GIFT 3 – worth £11.95!
A set of superb 8000 Plus dust covers to protect your PCW. (You can order these separately – see overleaf.)

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AMAZING LOCOSPELL OFFER!

Buy it from us and you'll also receive a tempting gift worth over £8!

LocoSpell is here at last, the long-awaited spell-checker from Locomotive Software, authors of LocoScript. Operating from *within* LocoScript, the program allows you to spot all your typing errors and spelling mistakes before you've even had to save your document!

In fact the program does more than spot errors – it offers a list of suggestions of the word you really intended to type allowing virtually instant correction.

The software package comes with two separate dictionaries – a 32,000 word version for super-fast check or a massive 77,000 word dictionary. And you can create further dictionaries containing specialist words and names which you use regularly.

The program package costs £39.95, but if you order from us using the form overleaf you can also select one of three fantastic gifts worth £8-15! It's got to be the best way of buying one of the year's most significant releases.

CHOOSE YOUR GIFT!

You can have any of these three valuable gifts when you order LocoSpell.

GIFT 1 – worth £8.95!

A copy of the best-selling book *Mastering the Amstrad PCW 8256/8512* by John Hughes, author of our series on Basic programming. It's packed with useful information on LocoScript, CP/M and other topics. Far easier to understand than the manual.

GIFT 2 – worth around £8!

Two blank 3" discs for use with your PCW (use in either drive if you have an 8512). As soon as you receive LocoSpell you'll be able to back it up with two working discs.

GIFT 3 – worth £14.95!

A copy of the remarkable Ocean Software game *Batman* as described elsewhere on these pages. Superb light relief from the demands of word-processing. If your fun-loving neighbours aren't yet impressed with your PCW, *Batman* could just make their eyes pop out of their heads!

SPECIAL OFFERS

COMPUTER SCRABBLE

Only £17.95 - save £2!

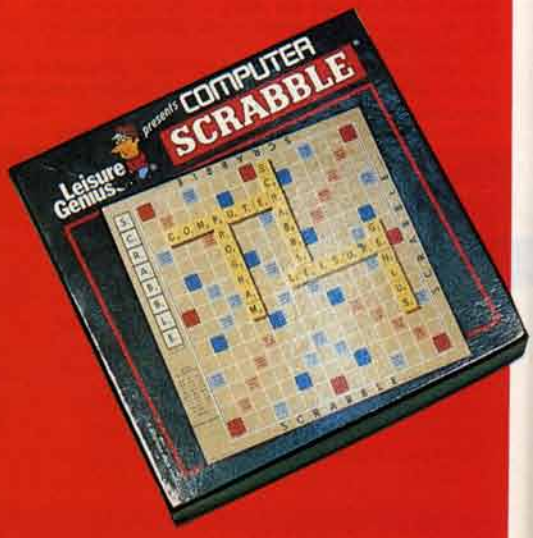
Writers, wordsmiths, LocoScript users all, this is the program you've been waiting for.

The much-loved, much-played word game has arrived on the PCW courtesy of Leisure Genius, and presents you with a new challenge: Can you beat your word-processor at word processing?

Be warned, the program, backed up by a huge built-in vocabulary, plays a very mean game. It knows all the rules and will use every trick in the book to build up mind-boggling scores.

The full Scrabble board is displayed on screen with all the squares in their usual places. More than one player can take on the computer, and you can set the program's level from super-fast to super-smart. There are plenty of other options, including the facility to watch the program 'think'.

If you bought your PCW for word processing, what are you waiting for?



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The specially-commissioned 8000 Plus covers are made from high-quality anti-static nylon fabric. The covers themselves are a soft grey colour with those for the monitor and printer piped in red. The keyboard cover bears the 8000 Plus logo in red.

It adds up to a good argument for a cover up.

BINDERS

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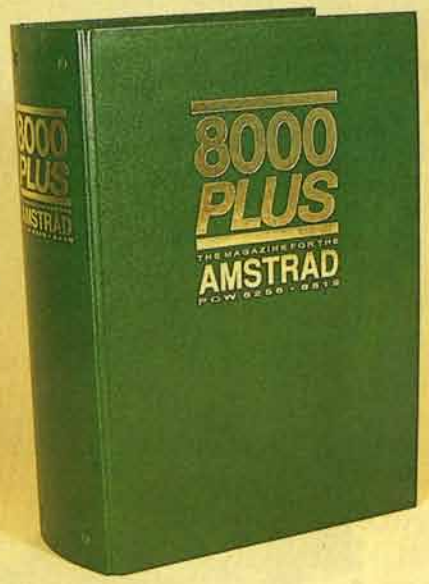
Here's the cure for a desk cluttered with back issues of 8000 Plus: the official 8000 Plus binder.

It's a smart, sturdy piece of kit with our logo stamped proudly on the spine. More to the point, it holds 12 copies of your favourite magazine and is guaranteed to keep them in fine condition for years to come.

Loyal readers, roll up.



HOW TO ORDER

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SPECIAL OFFERS

WANT A THINGI?

Yours for just £5.95 – save £2!

What's white, dangles papers next to your computer screen, and costs two pounds less than in the shops? Yes, a Thingi bought through 8000 Plus.

This remarkable computer accessory – an idea so simple it's ingenious – could dramatically ease your word-processing hours. All it is is a cleverly shaped piece of plastic that attaches via Velcro to the top of your micro. But with a Thingi on your PCW you can have documents, letters, or program listings clipped right next to the screen in perfect reading position.

Any task involving copying off paper is thereby made much easier and faster. In fact the clip supplied is sturdy enough to support an issue of 8000 Plus open, say, at the TipOffs section.

The Thingi can be positioned either to the left or right of the screen and can easily be removed and replaced if necessary.

A really sensible, cost-effective add-on for your PCW.

SPECIAL OFFERS
SPECIAL OFFERS

BATMAN

Only £9.95 – save £5

Holy smoke, this offer is HOT! The best arcade game yet to appear on the PCW machines and you can have it for under a tenner.

Batman is *superb* – the game's challenge, sophistication and sheer high quality belies its comic strip roots. Until you've seen it onscreen you simply won't believe what your PCW is capable of graphically.

The idea is to explore a vast network of rooms in search of various objects required to assemble your Batmobile. But numerous devious puzzles and opponents are put in your way, so much so that you hardly have time to admire the astounding animation and detailed background scenery.

It may not be useful, but it's certainly great fun and a bargain even at the normal asking price.

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THE VERY BIG CAVE ADVENTURE

Available EXCLUSIVELY through 8000 Plus. Only £9.95!

This is a classic spoof of a classic adventure. Packed with awful puns and silly puzzles (with even sillier solutions), it provides the perfect antidote to taking your computing too seriously.

The program is large – you get to play two separately loaded parts, the events in part two depending on your performance in part one. December's 8000 Plus awarded the game 4/5 on value at the recommended retail price of £14.95. But now CRL, the software house marketing the game have agreed to make it available through 8000 Plus and we've lopped no less than five pounds off the original asking price.

Roll up, adventurers all.

TOMAHAWK

Only £17.95 – save £2!

This program is a superb buy, both as an impressively life-like simulation of helicopter flight and as a challenging piece of entertainment. It gives you a pilot's eye view, including a detailed instrument panel and a 3D display of scenery outside such as trees, mountains and enemy forces. You engage the latter in combat using three different weapon systems.

Try it and be amazed at what your PCW is capable of. Offer extended to February 16th, 1986.

SUPERTYPE

Only £16.95 – save £3!

This is the program that was known as *Fontgem* until its marketing was transferred recently from Gemini to Digita. Whatever the name, the software is gorgeous.

What it does is to offer you EIGHT new, radically different typefaces. And each of them has its own distinctive, professional appeal, giving your documents an original facelift.

So, if you want your printed output to look a bit different from all the other LocoScripted letters around, SuperType is what you need. The ingenious thing about the program is that once you've installed your favourite font on a disc, you won't even notice the program working. You can run LocoScript in the normal way and everything will be the same except that when you print out, the results are exciting. The software is compatible with CP/M too.

Great value at its full recommended retail price of £19.95, at just £16.95 it's another remarkable bargain from 8000 Plus.

This is Business 1 font
This is Business 2 font
This is Business 3 Font
THIS IS BUSINESS 4 FONT
This is Outline font
This is Vaudeville font
This is Olde English font
This is Stencil font

HOW TO ORDER

◄ Just fill in the form on left of page

SOUND CONTROLLER

Only £34.95 – save £5! Includes programmable joystick interface

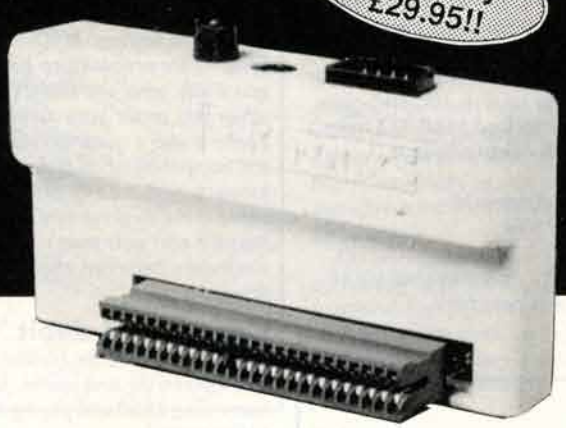
Beep, beep, move over. A new era in PCW sound production is here. This delightful little widget from widget pro's DK'Tronics will allow your Amstrad to produce glorious three-channel sound over eight octaves!

Using the same chip that's fitted to the Amstrad CPC computers, it offers the power of producing all manner of sound effects, with full control of tone, volume and 'envelope shape' on all three channels.

Also built in is a standard joystick port – its programmable interface can emulate any set of five keys used in a game, say, for left, right, up, down and fire. The unit itself plugs straight into your PCW expansion port.

Sounds good? It will.

Now only £29.95!!



By popular request, here's another chance to buy our favourites from the remarkable range of Infocom adventures at remarkable 8000 Plus prices.

For many people, these programs represent the pinnacle of computer entertainment. What they offer you is NOT graphics or chase-a-blob arcade action. Instead you will find yourself placed in a fictitious world, described in superbly atmospheric detail, and face a sequence of brain-twisting challenges liable to keep you at the keyboard for months.

You communicate with the computer by typing in simple English sentences. If the program doesn't understand, it'll tell you, but the Infocom titles are renowned for their sophistication in handling language, and you'll soon almost believe you're communicating with an intelligent being. In fact, Infocom themselves describe these programs as 'interactive fiction' – it's like finding yourself inside a novel and having the chance of determining your own destiny.

Until recently these programs were not available in the UK for under £30. And for good reason. For one thing, the programs are massive, containing literally tens of thousands of words of description. For another, they're superbly packaged with all kinds of amusing little extras to accompany the comprehensive and witty documentation.

So to be able to pick them up through us for under £20 a piece is simply remarkable. Pull the curtains, shut out the winter and let your PCW transport you into a different world...

SPECIAL OFFERS SPECIAL OFFERS SPECIAL OFFERS

SUBSCRIBE!

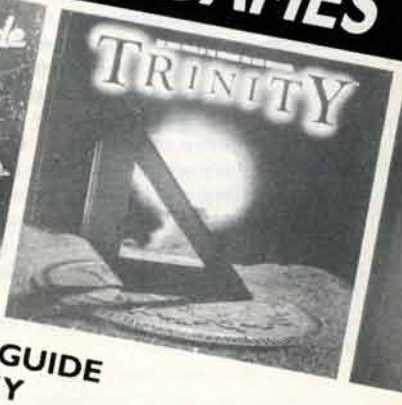
£17.95 for 12 issues and a free binder!

We hope you're convinced by now that 8000 Plus is a magazine worth having around for the next year. If so, why not avoid the rush for the newsagents, the frustration of an empty shelf! One decision now and issues will drop comfortably onto your doormat for the next 12 months.

Our annual subscription price of £17.95 is an all inclusive rate covering all postage and packing.

What is more, people who subscribe before the year is out will be entitled to an 8000 Plus official binder worth £4.95. Not only do you get the magazines, you get to keep them neatly in pristine condition!

INFOCOM GAMES



HITCH-HIKER's GUIDE TO THE GALAXY

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Arguably the world's wittiest, wackiest adventure game. You take on the famous role of Arthur Dent who only stays alive by discovering ingenious solutions to problems such as that posed by the terrifying Bugblatter Beast, a creature so stupid it thinks that if you can't see it, it can't see you.

Can you work out what to do with a pile of junk mail? Can you learn to understand Vagan poetry? Can you show an obstinate door a sign of intelligence? A game to delight and challenge you for months.

WISHBRINGER

Only £19.95 – save £5!

A stunningly atmospheric game in the Infocom fantasy tradition. The action starts with you, the village postman of Festeron, discovering that a cat belonging to the keeper of the Magicke Shoppe has strangely disappeared. Your only help in solving what rapidly becomes a deep mystery is Wishbringer, a small stone bestowing seven special powers.

This program is especially suitable for people embarking on their first adventure. (It's also, however, been raved over by experts!)

BALLYHOO

Only £19.95 – save £5!

This one's set in a seedy circus in which you have to discover who has kidnapped the owner's daughter. It's packed from start to finish with puzzles of mind-boggling challenge. How do you get a helium balloon that's only reachable across a tight-rope? How do you soothe a gorilla with music when your radio seems incapable of clear reception? How do you trick a clown into letting you past his wagon door?

There are clues cleverly hidden in the accompanying documentation, but even with their help you'll be in for some long evenings!

TRINITY

Only £24.99 – save £10!

How about this for a scenario? A nuclear explosion in London transports you back to New Mexico, July 1945, the test site for the first atom bomb. Now is your opportunity to influence history...

This program is the first to use 'interactive fiction plus' – it has even more locations and vocabulary than any other Infocom title and extra sophistication in handling language. The extra power is put to good use, and the game's theme of nuclear is taken very seriously. State-of-the-art adventuring.

POSTSCRIPT

The mail mauled, mangled and moderated by a misunderstood Ed

The avalanche of mail continues to cover our desks each month. As we clear a space around our beloved PCWs, open our Swiss Army knives and slit the manilla DLs, we realise that yet again we have provoked a wide variety of reactions. It's good to read comments on any aspects of the 8000 series, this magazine or the micro industry in general.

Please join the contributors to these pages by giving us your opinions, or try us out with any questions or problems you have. So long as they might be of interest to others, we'll do our best to print answers in the magazine (but no personal replies, I'm afraid). The address to write to is:
Post Script, 8000 Plus, The Old Barn, Somerton, Somerset TA11 7PY

You can also contact us via Telecom Gold, using the mailbox number *84:TXT152*.

Praise for Grafsales

In the November issue of 8000 Plus you gave an 'Ontest' report of the Grafpad 3. This tempted me to visit Messers Grafsales for a demonstration, and to my bank manager's horror, part with £149.50.

Your report mentioned the 'truly awful current version of the manual'. How right you were! It is all very well seeing a demonstration by a competent operator, but quite another when trying to use the pad while referring to the manual.

After numerous unsuccessful trials I telephoned the General Manager at Grafsales to ask for help.

I should be grateful if you would print this letter as a public 'thank you' to Mr Laholt of Grafsales who gave me over two hours of tuition on a Sunday morning.

The potential of this equipment is amazing. I wonder if any of your readers have tried to plot a family tree consisting of three hundred names on A2 paper by conventional means, and if so wonder how many sheets of A2 have been wasted. Take a tip – buy a Grafpad!

Maurice Hann
Hayes, Middlesex

Good to hear of the service you received from Grafsales. I can't help feeling, though, that a better manual would be an easier way out.

Other Grafpad users will be interested to know there is now a 'Reel Time' audio tutor cassette out for it – see the news pages for details

Backhanded compliment

Is everyone at the Old Barn a sadist, or what? Those of us who've spent the past twelve months agonising over PCW manuals translated from the original Urdu by retarded dyslexics wearing welding goggles have EARNED our proficiency. (Those of us not in the funny farm, at any rate). Then you come along and give any Tom, Dick or Joyce a piece of the action without even a semblance of proper initiation. I suppose you're all into junk food as well, no doubt ordered through fancy pull-down menus.

But seriously, folks, '8000 Plus' is what we've been waiting for – although, judging from your last couple of issues, by now you need compliments like Alan Sugar needs free school meals.

Finally, a tip: if for any reason you want hidden LocoScript files to show on the directory on start-up, the Software's 'hide' instruction (which normally re-sets when you boot) can be deleted by renaming the file (using f5 from the file management menu) to anything else, then renaming it back again. This way, having followed Langford's tip in issue 2 (or rather the second issue 1, tsk, tsk), you won't try to load MAIL232 from a disc which doesn't have it.

'Mac' McDiarmid
London, SE4

Junk food – in Somerton? It's all faggots and peas here.

"WELL, I ALWAYS SAID THAT DAMN COMPUTER WAS JUST A TRIVIAL PURSUIT"

Reusable drives

One article which interested me in issue 3 was the one which dealt with the UNIFACE by Silicon Systems. The first paragraph mentions that this Interface can be connected to most 3" and 5¼" drives. As it happens I still have a CPC464 with both the disc drives DD1 and FD1. It would be useful therefore if I could make use of either of these drives in conjunction with my PCW 8256. Also if I do manage to use the existing 3" drive, is there anything to prevent a conversion to a 5¼" at a later date without changing the interface.

I would value your advice.

Leo Parker
Oswaldtwistle, Accrington

The answer is a qualified 'Yes'. You can use your FD1 drive with Uniface, although it would be a lot more difficult to use the DD1, because of the disc interface connected to it.

The FD1 interface lead will need some modification, but Silicon Systems are prepared to do this for you if you send the drive to them when you order your Uniface. There is also a question mark over the compatibility of discs formatted on a CPC drive and those in the A: drive of a PCW. It is possible that you won't be able to swap discs between the two drives.

Credit card debit

Your programme for bankers cards was interesting and useful, but try borrowing £500 and paying back at £10 monthly!.

K Bearparks
Port Erin, Isle of Man

Ah – yes. Well my bank won't let me borrow that much.

A full address

I read your magazine and would like you to publish the full name and address with all letters.

The reason I ask is that there is no way that I can answer any of the queries that people ask without having to put lengthy programs/letters into the magazine, which can not in any case publish every reply.

D Copperthwaite
Bradford Moor, Bradford

We don't normally publish the full address of our readers to save them being inundated with junk mail (letters pages are an easy source for mailing houses making up lists). If anyone is writing for help with a particular problem, though, they can ask us to include their full address.

Name dropping

As a matter of interest, in the last two days I have talked to three fellow peers who also have Amstrads and all had problems which, by a fluke, I was able to solve. I told each of them to buy 8000 Plus, as it was the only worthwhile magazine on PCW Amstrads.

The Earl Attlee
House of Lords

I'm tempted to say '8000 Plus reaches the houses other mags.....'

A disc is a disc is a disc

Are there any comments from either you or your readers on the quality of non-Amsoft 3" discs for the PCW 8512 as supplied by SBS Data Services? They are substantially cheaper than the Amsoft CF2DD (though they are double density), and one wonders if they're really as good as the original. Any experience would be welcome.

Ken Payne
Chesterfield

All three inch discs are manufactured by one of two companies; Maxell or Panasonic. They are both of very similar quality and are direct replacements for each other. The SBS discs are just as good as those from Amsoft and both are likely to be sourced from the same Japanese suppliers.

There is no need to buy the CF2DD disc for drive B: on a PCW 8256, as the ordinary CF2 has been proved to be thoroughly reliable when formatted for the higher capacity. CF2 discs are now recommended by Amstrad for either PCW drive.

NOGO LOGO

Is anyone out there using Logo? If so, has he sussed out how to combine text and graphics in the same area and will he be so kind as to spread the benefits of his genius to us lesser mortals?

The PCW8256 User Guide lists the 'primitive' tt, which the Guide to Logo (Soft 160) identifies as 'turtle text' and shows how it can be used to write text (on screen and printer) within graphics, ie not just in a separate area.

So what's the problem? Unfortunately, the User Guide, which recommends the Guide to Logo, doesn't mention that it was written for CPCs – nor that the program supplied with the PCW doesn't recognise this primitive.

J C Fenning
Pinner, Middlesex

It's not listed in my User Guide. I imagine you must have an early version of the guide and that later editions removed references to a primitive which, as you say, is not available on the PCW version of DR Logo.

Do any readers know of a way of combining text with Logo graphics? It should be possible to write Logo procedures to draw each letter, but they'd take up a fair amount of space.

Printer problem

From time to time my PCW8256 has a very stubborn mood. I may have edited a file or created one and, when satisfied, I EXIT so that I can choose a print out and up comes a shortened menu, offering only the options 'Finish Editing', 'Save and Continue' or 'Abandon Edit'.

What on earth is this menu? I cannot find any mention of it in the manual. Once it gets in this mood the 8256 proves too stubborn to desert it, no matter how many files are called up and offered – hence this letter on an ordinary typewriter!

How do I get a print out from this shortened menu?

Wynne Atkinson
Sheffield

LocoScript, being a clever sort of word processor, can tell whether your printer's in a fit condition to print a document. If it is, it offers the 'Save and Print' option in the expected way. If the printer's not properly connected, or busy printing something else, the option isn't offered.

First press [CAN] to remove the menu. Check that the printer is properly connected and ready to print, then press [PTR], [f7] for 'Reset' and [ENTER]. This will reset the printer so that LocoScript knows it's available.

Itty bitty screen dump

I note that you recommend using [EXTRA]+[PTR] for a screen dump. This gives me double printed compressed type which is slow and difficult to read. Is it possible to obtain a screen dump in a larger pitch and draft quality?

Arthur Yaffy
Glasgow

There's no way of obtaining a larger screen dump from the PCW, unless there's a printer utility available commercially (or in the public domain) of which I'm currently unaware (but will no doubt be told about very soon by hundreds of readers!).

No VAT please

As I am resident outside the UK, I do not have to pay VAT. Please tell me how I can obtain software for my PCW8256 which is supplied free of VAT.

Cmdr M J Wighting
SHAPE BFPO 26

Most software houses in this country should be geared up to supply software abroad. As long as you state in your order that you are exempt from VAT, and enclose the price plus any postage and packing charge, you shouldn't have any trouble.

Tortoise and hare

I have had PCWs for over a year and while I use Locoscript for letters and scripts (the phrases are super for holding characters' names at the correct indentation) I use Tasword for longer pieces of prose... and I use Tasman's spelling checker. When I use a spelling checker I don't have time to alter the errors then and there.

I want it to operate on its own – printing out the errors and queries so I can check and change them at leisure. Which brings me to the point of this letter.

Your reviews of spelling checkers tend to ignore this function, hence when you accuse Tas-Spell of being woefully slow for me that is almost irrelevant because it will print out any unrecognised words along with their line number. But having read your review of the LocoScript spelling checker I don't know if it has such a print function or not!

R Humphrey
South Humberside

I don't really understand the advantage. In the case of Taspell you have to run the checker, produce a tabulated print-out and then re-run the word processor and search for each error. With a checker such as LocoSpell, you

Free text filing

You must have found on your first survey that there is a very large group of PCW owners who are not in business or commerce, but use their PCWs for a fairly heavy programme of serious writing which would be aided by a database system not primarily concerned with stock control, accounts, mailshots or financial spread-sheets.

PCW users need to keep records that can be sorted alphabetically, retrieved in different forms and printed out. No software manufacturer seems to have thought of providing what would be quite a simple database for this purpose. A number of members of staff at the school in which I teach would be glad of such a database and this need must be multiplied many times over in educational and academic establishments around the country.

I have read a number of similar queries in letters to the various Amstrad magazines, but editorial replies have never been able to suggest a suitable piece of software. Could not 8000 Plus publicise this need? And how about a piece of software dedicated to 8000 Plus users, allowing them to keep on disc a reference system for quick location of your excellent tips? They are building up very pleasingly!

D V H Dunn (Mrs)
West Sussex

What you need is a free text database, of which there are two examples currently on offer. Chibase was reviewed in issue 3, and FT=DB is reviewed this month. Either of the programs allows you to index any word processor text file and call up sections of it using 'key phrases'.

Since our review of Chibase, a new version has been produced which offers improved editing facilities and easier controls.

would run LocoScript at the time you wanted to make the corrections, and it would find each one for you as it went through the file. As well as saving a paper print-out, you only have one pass through the file, which must be a saving in time.

Double disc benefits

Could you clarify a couple of things for me, before I lash out on a machine? For instance, why (and is it essential to) call them 'Joyce'? I mean, Joyce, for crying out loud!

More importantly, I read (elsewhere) of the 8512 that 'When used as a WP, the second drive is of little practical use.' Your third issue mentions that 'Each side of a disc in the 'A' drive of the PCW can hold 170K, or about 90 pages of a typical novel. The disc in the 'B' drive can hold about four times as much data, or 720K to the technically minded'. If I an intending to write my typical novel, would the larger memory and 2nd drive of the 8512 be advantageous?

Furthermore, any comment on the rumours that Amstrad may be bringing out a better printer, or that they may be reducing supplies of the 8512 so it doesn't conflict with their 1512 range?

Harry Pattinson
Rugeley, Staffs

It certainly isn't essential to refer to your micro by the name of Alan Sugar's belaboured secretary, and is something we're actively trying to discourage.

The second drive is certainly very useful, even if your main use for the machine is word processing (and this will teach you to read things 'elsewhere').

Particularly when writing long manuscripts, it's very handy to keep all the text on one disc. Remember to keep at least one back-up, though. It also useful to be able to back up files from one disc to the other (only B: to A:, though) in one operation rather than two.

Going to odd lengths

In a recent issue of your magazine you advised Mr Hardy that the reason for his continuous stationery not feeding correctly was possibly due to the wrong length being set.

The reason he will find is that he is using 'True A4' listing paper, normally used for letters. This paper is $11^{2/3}$" in length and has a form length of 70; it is the nearest available to the $11^{3/4}$" of A4 paper. The standard listing paper is 11" long and has a form length of 66.

All Mr Hardy needs to do to work out his form length is to remember that 6 lines per inch are required when working out form lengths.

I hope that this will help him and any other readers of your magazine.

Nigel Hellewell
London E3

Thanks for the explanation

Stuck on the launch pad

Thank you for the first three issues of 8000 Plus which I have just received, also the free disc. Unfortunately I am unable to make this work. When typing in any of the titles I get the following on the screen:

```
A> rocket
ROCKET?
```

Then pressing '?' the screen answers

```
CP/M Error on A: ? in
Filename
BDOS Function =
File = ?
```

What do I do next? It is probably a silly question but I would very much appreciate your advice as the disc is quite useless as it is.

L K Lovett-Turner
Chiswick

When CP/M displays a filename with a question mark after it, it means it can't execute the file. In English, it's saying 'Rocket? – I can't find a useable file with that name'. There's no point in typing the '?' back at it.

You can't run ROCKET from CP/M as it's a BASIC program. You need first to load Mallard BASIC by inserting your CP/M system disc and typing BASIC. You can then run ROCKET by re-inserting the free disc and typing RUN"ROCKET.

Sign of the times? – 1

I have a problem with SuperCalc2 in that I cannot alter the '$' sign on the 'User Defined Format' to a '£' sign when using the PCW8256.

Do you or any of your readers have a solution?

Brian B Moore
Aldershot, Hants

We don't. Do you?

Sign of the times? – 2

I am appalled at the apparent lack of testing you give to the software you recommend. I recently purchased a Pocket Wordstar which you (and many other journals) have reviewed without too much criticism, and was astonished to find it does not support the pound sign '£'.

The manual gives no indication how to deal with this quirk; on reflection this is no surprise since it is simply an American program, tailored for the British market by plastering an Amstrad 8256 label on the box and NOTHING MORE. This is the support that software suppliers claim costs so much?

G D Probert
Loughborough, Leics

Not so. Pocket WordStar does actually print a pound sign, though it only displays a hash on the screen.

You're also wrong to say that Pocket WordStar is unadapted for the PCW. It makes full use of the large 90 column, 32 row screen, is correctly configured for the PCW printer and has a SETKEYS file which allows keys such as DEL◆, DEL◆ and the cursor arrows to work correctly. It comes pre-installed for this configuration, whereas most versions of WordStar have to be installed by the user with a separate program.

Keeping the program informed

Using NewWord with Drive B as the data disc on the 8512, I encountered a couple of problems but I do not know why.

I tried to recall a document and got the message 'Cannot create temporary files.' Assuming the disc to be full I checked and to my surprise found 186K space left. The only way that I could recall the file was to delete a couple of address files.

I then changed to a new disc and part way through the next letter put in the old disc to recall a block and then changed back to save to the new disc.

The message received was to the effect that the disc was full (on a practically empty disc) and I had to abandon the file.

I tried again with the same result but this time, instead of abandoning the file, made the whole letter a block with a slightly different name and this time was successful in saving it. I then abandoned the letter file and printed the block.

James Barr
Billericay, Essex

NewWord can't cope with disc swapping while you're editing a file. Even if you log the disc in again by typing [ALT]KL, you will continue to get the 'disc probably full' error. The only way out is, as you describe, to mark the top and bottom of the file and write it out to a file with a different name with [ALT]KW.

The life of a disc

I am puzzled about making back up copies of software. Cyrus II Chess won't allow it. Cambase, to its credit, urges it, not withstanding their risk from criminal pirates.

Your article says that a disc may be spoilt in normal use so has my chess disc only a limited life?

S H Scott PhD
Watford

When we wrote that a disc might be spoilt, we were thinking of it being eaten by a Doberman, carried off by a Condor or sat on by a Hippo. In normal use, the incidence of disc failure is very low. Most reputable games publishers will replace a faulty disc which they have protected against copying.

Ducking the issue

I was surprised to read your reply to W J Rann in your December '86 issue, in which you say that a program written in Mallard BASIC can't be compiled using Microsoft's BASCOM.

So long as the program is written in that subset of BASICcommon to both Mallard and Microsoft, and then stored in ASCII,– using, for example SAVE "EXAMPLE.BAS",A – the program can be edited and tested from within Mallard BASIC and then compiled and linked using the appropriate Microsoft software.

Gary Jones
Ruislip, Middlesex

It's a fair cop. You can indeed

"IT WAS HIS LAST WISH..."

compile Mallard BASIC programs with Microsoft's BASCOM, although the subset of the language common to both is not very extensive (no JETSAM, for instance).

SUBMITting to the rules

Would you, or any of your readers, know how to use the SUBMIT.COM CP/M utility with an unprotected disc? I have set up both SuperCalc and dBase II to cold boot, but can only do so with the system disc write permitted, which I consider to be a dangerous practice. Any ideas?

I am using an 8512 in a small business environment (no games at all), running LocoScript, SuperCalc and dBase II (just learning). It is of great value and has cost less than £800 in total, as opposed to £5000 odd for an all-singing all-dancing man -sized system which I could not financially justify.

John E Currer
Brentford, Middx

A lot of people have realised the potential saving of a PCW over a PC.

As far as your problem is concerned, I assume you mean you want to use SUBMIT on a protected disc, as it works normally on an unprotected one. The answer is no; you cannot run SUBMIT if the disc is protected. SUBMIT creates a temporary file while it's running, so it can make a note of where it has got to. It has to be able to put this file on the boot disc.

There is no danger in writing to your boot disc, as long as this disc is a copy of the master.

Clever tricks

Please help this humble, desperate programmer with a sticky problem that even 'Batman' would find difficult. How does one access the graphics that such programs as the aforementioned 'Batman' and '3-D Clock Chess' utilise???

Roger Bonnett
Dover, Kent

The graphics used by several of the more crafty software houses in their recent games for the PCW are a closely guarded secret. There's no easy way to get at them on your own, although DR offer packages like DR Draw which go somewhere towards it.

Another package which may be a help is CP software's 'All you really wanted to know...', which was reviewed last month.

Foreign accents again

From time to time I have to produce foreign language texts. NewWord doesn't support accents and special characters, which means I have to put them in by hand (which defeats the object of buying NewWord).

I've fiddled around with SETKEYS for ages but to no avail. All the extra characters I want have an internal hex value of 7F upwards, and p.103 of the Amstrad manual points out that such characters will be misinterpreted by certain CP/M programs. In fact, NewWord either ignores the character altogether or returns a seemingly random character from lower down in the ASCII set. The NewWord manual doesn't discuss the problem at all.

Am I trying to achieve the impossible?

Nigel Thomas
London W14

The reason WordStar and NewWord ignore the foreign language characters is that both word processors work on the 7 bit ASCII character set. In other words, they ignore all ASCII characters with values above 128 decimal.

No fan male

I rather suspect that the Amstrad PCW (and 8000 Plus) has been sold to women as well as men. Yet 8000 Plus has already started making it obvious it doesn't want women to feel included in its readership. The ways it does this may be trivial as David Langford recommending a trip to the pub to brag to one's mates over several pints of one's ability to run a programme. Or they may be as overt as your cartoonist's 'Page 3' joke - and, on the same page, your highlighting David Mendes' letter and photograph, and your adolescent attempt at a humorous reply.

Now I'm not an overly sensitive person, so if I've begun to notice things like this, others will have already voted with their wallets. Please be more careful. I'm sure 8000 Plus can rise to more than the intellectual level of the average garage mechanic.

Bawn O'Beirne-Ranelagh
London W2

I'm sorry if the odd cartoon has offended you. We act as asexually as possible, but are not about to censor our freelance contributors for their senses of humour.

Surely you are indulging in the kind of generalisation you deplore by lumping all garage mechanics together?

Address marks the spot

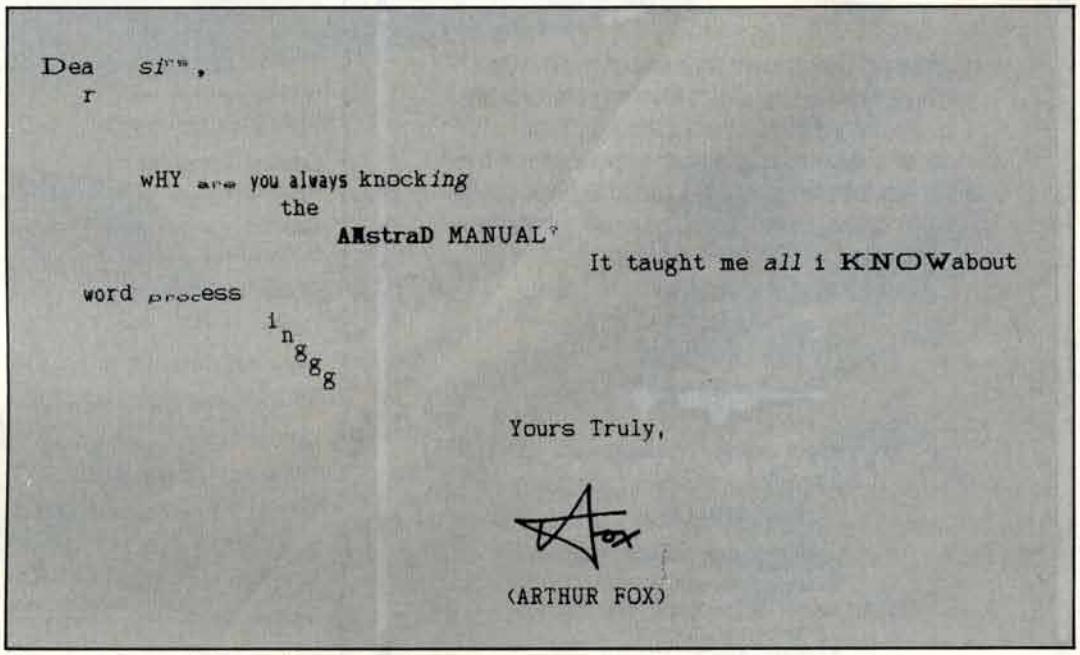
Ref. your correspondent David McGettigan who found the Glasgow air dissolved an address mark on a heavily loaded CF2DD and his machine refused to accept it. 'Orrible, I could almost hear the hand-wringing from here. This has happened to me on three occasions, mercifully not more (it's bad for ones heart), and no matter how often you 'R-etry', the silly thing still swears it's lost your address, even when there is no apparent reason why it should.

However, I have stumbled on a probably illogical, and almost certainly not universally successful, cure. When last faced with this on my data disc carrying over 300K of text, I eventually removed the discs from both drives, replaced them and hit f1 to tell it that I had changed discs. It accepted this bare-faced lie and up came the disc management screen, as good as gold.

Peter J Townsend
Wirral L48 8AE

A good tip. Let's hope it saves a few other discs.

EXIT



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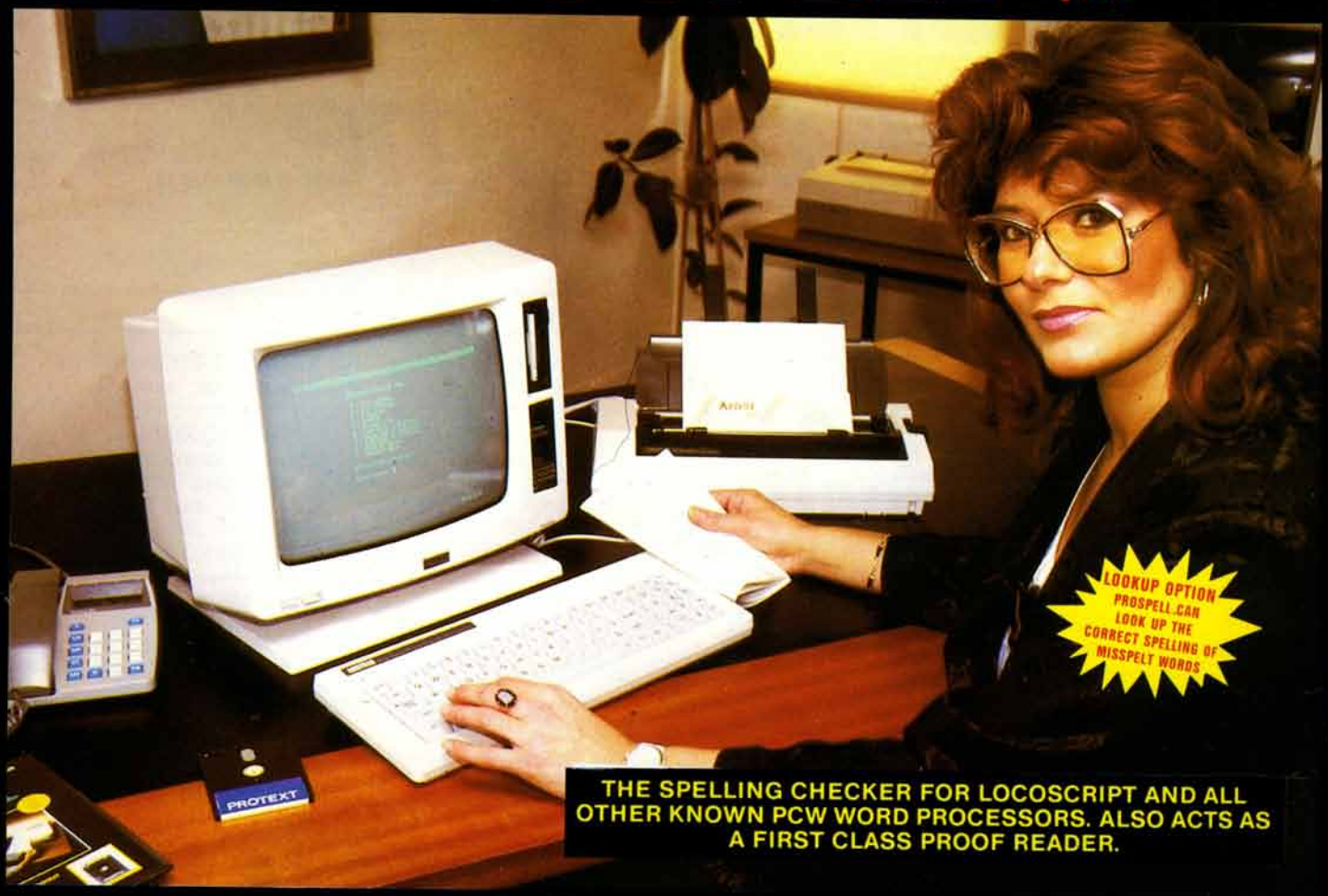

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